

SEZIONE 1: Identificazione della sostanza/miscela e della società/impresa

1.1 Identificatore del prodotto

Nome commerciale del prodotto/identificazione LENZING™ Acido Acetico Biobased 90-100%

Identificatore unico di formula LENZING™ Acetic Acid Biobased, food grade 100% (/)
LENZING™ Acetic Acid Biobased, food grade 90% 0CKF-542W-YY6G-GU7G;
LENZING™ Acetic Acid Biobased, chemical grade 100% (/)
LENZING™ Acetic Acid Biobased, chemical grade 90%: AFKF-N4SA-9Y60-45TJ

No. CAS 64-19-7

Nr. REACH 01-2119475328-30-0036

Altre denominazioni

acido acetico cod. 13100260-13100264

1.2 Usi identificati pertinenti della sostanza o della miscela e usi sconsigliati

Usi rilevanti individuati

annotazione

Vale solo se vengono rispettate le condizioni descritte in allegato a questo foglio di dati di sicurezza.

Settori d'uso [SU]

SU3 Usi industriali

SU3 Produzione industriale.

SU4 Industrie alimentari

SU5 Confezione di articoli in tessuto, pelle e pelliccia

SU6a Lavorazione di legno e prodotti in legno

SU6b Produzione di pasta per la fabbricazione della carta, carta e prodotti di carta

SU8 Produzione di prodotti chimici di base su larga scala (compresi i prodotti petroliferi)

SU9 Fabbricazione di prodotti di chimica fine

SU10 Formulazione e imballaggio di sostanze chimiche.

SU22 Usi professionali: settore pubblico (amministrazione, istruzione, intrattenimento, servizi, artigianato)

SU21 Usi di consumo: nuclei familiari (= popolazione in generale = consumatori)

SU1 Agricoltura, silvicoltura, pesca

SU2b Industrie offshore

Il prodotto è fornito da:

Categorie di prodotti [PC]

PC3 Depuratori dell'aria

PC4 Prodotti antigelo e prodotti per lo sbrinamento

PC9a Rivestimenti e vernici, diluenti, soluzioni decapanti

PC9b Additivi, stucchi, intonaci, argilla da modellare

PC9c Colori a dito

PC12 Fertilizzanti

PC24 Lubrificanti, grassi e prodotti di rilascio

PC27 Prodotti fitosanitari

PC35 Prodotti per il lavaggio e la pulizia (tra cui prodotti a base di solventi)

PC34 Coloranti per tessuti, prodotti di finitura e impregnanti

PC38 Prodotti per la saldatura (con rivestimento senza gas o filo animato), prodotti scorificanti

PC8 Prodotti biocidi (per esempio, disinfettanti, antiparassitari)

PC19 Sostanza intermedia (precursore)

PC20 Prodotti quali regolatori di pH, flocculanti, precipitatori, agenti neutralizzanti

PC21 Sostanze chimiche per laboratorio

PC26 Prodotti per la tintura, la finitura e l'impregnazione di carta e cartone compresi candeggine e altri coadiuvanti tecnologici

PC29 Prodotti farmaceutici

PC37 Prodotti chimici per il trattamento delle acque

PC39 Cosmetici, prodotti per la cura personale

Categorie di rilascio nell'ambiente [ERC]

ERC2 Formulazione di preparati (miscele)

ERC6a Uso industriale che ha come risultato la produzione di un'altra sostanza (uso di sostanze intermedie)

Andrea Gallo di Luigi S.r.l.u.
Via Erzelli, 9
16152 Genova – IT
Tel: +39 (0)10 6502941
E-mail: info@andreagallo.it

ERC6b Uso industriale di coadiuvanti tecnologici reattivi

1.3 Informazioni sul fornitore della scheda di dati di sicurezza

Produttore

Lenzing AG

Werkstraße 2

Austria-4860 Lenzing

Telefono: +43 7672 701 0

E-mail (persona esperta): sds@lenzing.com

1.4 Numero telefonico di emergenza

Centro Antiveleni (CAV)/Centro Nazionale Informazione tossicologica (CNIT) di (Pavia): +39 382 24444

Lista Centri Antiveleni Italiani segue a SEZIONE 16

SEZIONE 2: Identificazione dei pericoli

2.1 Classificazione della sostanza o della miscela

Altre informazioni

Testo delle R-, H- e EUH - frasi: vedi alla sezione 16.

Classificazione secondo il regolamento (EC) N. 1272/2008 [CLP]

Pericoli per la salute

Skin Corr. 1A

Avvertenze relative ai pericoli per la salute

H314 Provoca gravi ustioni cutanee e gravi lesioni oculari.

Procedura di classificazione

Classificazione armonizzata (legale).

Pericoli fisici

Flam. Liq. 3

Avvertenze relative ai pericoli fisici

H226 Liquido e vapori infiammabili.

Procedura di classificazione

Classificazione armonizzata (legale).

2.2 Elementi dell'etichetta

etichettature secondo la normativa CE n. 1272/2008 [CLP]

Pittogrammi relativi ai pericoli



GHS02



GHS05

Avvertenza

Pericolo

Indicazioni di pericolo

Avvertenze relative ai pericoli fisici

H226 Liquido e vapori infiammabili.

Avvertenze relative ai pericoli per la salute

H314 Provoca gravi ustioni cutanee e gravi lesioni oculari.

Consigli di prudenza

Prevenzione

P210 Tenere lontano da fonti di calore, superfici calde, scintille, fiamme libere o altre fonti di accensione. Non fumare.

P241 Utilizzare impianti elettrici/di ventilazione/d'illuminazione//a prova di esplosione.

P260 Non respirare la polvere/i fumi/i gas/la nebbia/i vapori/gli aerosol.

P280 Indossare guanti/indumenti protettivi/Proteggere gli occhi/il viso.

Risposta:

P303 + P361 + P353 IN CASO DI CONTATTO CON LA PELLE (o con i capelli): togliere immediatamente tutti gli indumenti contaminati. Sciacquare la pelle/fare una doccia.

P305 + P351 + P338 IN CASO DI CONTATTO CON GLI OCCHI: sciacquare accuratamente per parecchi minuti. Togliere le eventuali lenti a contatto se è agevole farlo. Continuare a sciacquare.

2.3 Altri pericoli

Possibili effetti nocivi sull'uomo e possibili sintomi

Questa sostanza non ha proprietà endocrine nell'uomo.

Risultati della valutazione PBT e vPvB

Questa sostanza non soddisfa i criteri PBT/vPvB della normativa REACH, allegato XIII.

SEZIONE 3: Composizione / informazioni sugli ingredienti

3.1/3.2 Sostanze/Miscela

Ingredienti pericolosi

acido acetico ... %	90 - 100 %
CAS 64-19-7	
EC 200-580-7	
INDEX 607-002-00-6	
Flam. Liq. 3, H226 / Skin Corr. 1A, H314	

Valore limite di concentrazione specifico (SCL):

Nome della sostanza acido acetico ... %

Classi e categorie di pericoli

Skin Corr. 1A

min. >=90 %

Nome della sostanza acido acetico ... %

Classi e categorie di pericoli

Skin Corr. 1B

min. >=25 %

max. <90 %

Nome della sostanza acido acetico ... %

Classi e categorie di pericoli

Skin Irrit. 2

min. >=10 %

max. <25 %

Nome della sostanza acido acetico ... %

Classi e categorie di pericoli

Eye Irrit. 2

min. >=10 %

max. <25 %

SEZIONE 4: Misure di primo soccorso

4.1 Descrizione delle misure di primo soccorso

Informazioni generali

In caso d'incidente o di malessere consultare immediatamente il medico (se possibile, mostrargli l'etichetta). Rimuovere immediatamente gli indumenti contaminati. I sintomi possono manifestarsi anche dopo alcune ore, pertanto è necessaria l'osservazione medica per almeno 48 ore dopo l'incidente.

In caso di inalazione

Portare la persona all'aperto. Mettere la persona colpita in posizione di riposo e tenerla calda.

in seguito a un contatto cutaneo

Lavarsi immediatamente con:

Acqua

Soluzine di soda, diluito

Dopo contatto con gli occhi

in caso di contatto con gli occhi, sciacquare a lungo con acqua tenendo le palpebre aperte, poi consultare immediatamente il medico.

In caso di ingestione

Dopo l'ingestione sciacquare la bocca con abbondante acqua (solo se la persona è cosciente) e richiedere immediatamente soccorso medico. Non provocare il vomito. Far bere molta acqua a piccoli sorsi (effetto diluente).

Autoprotezione del soccorritore

Soccorritore di pronto soccorso: Attenzione a proteggervi!

4.2 Principali sintomi ed effetti, sia acuti che ritardati

Effetti

Crampi

Edema polmonare

Nausea

Insufficienza respiratoria. Collasso circolatorio.

Dispnea

4.3 Indicazione dell'eventuale necessità di consultare immediatamente un medico e di trattamenti speciali

Nessun dato disponibile

SEZIONE 5: Misure antincendio

5.1 Mezzi di estinzione

Mezzi di estinzione idonei

Schiuma

Acqua

Biossido di carbonio (anidride carbonica) (CO₂)

5.2 Pericoli speciali derivanti dalla sostanza o dalla miscela

Nessun dato disponibile

5.3 Raccomandazioni per gli addetti all'estinzione degli incendi

Equipaggiamento per la protezione antincendio

Indossare indumenti protettivi resistenti a prodotti chimici e adoperare una maschera protettiva con ricircolo d'aria.

I Vapori sono più pesanti dell'aria

SEZIONE 6: Misure in caso di rilascio accidentale

6.1 Precauzioni personali, dispositivi di protezione e procedure in caso di emergenza

Per chi non interviene direttamente

Procedure d'emergenza

Mettere al sicuro le persone. Provvedere ad una sufficiente aerazione.

Per chi interviene direttamente

Protezione individuale

Utilizzare maschera respiratoria appropriata.

6.2 Precauzioni ambientali

Non disperdere nelle fognature o nelle falde acquifere. Nel caso di uscita di gas o di diffusione in corsi d'acqua, sul suolo o in fogne informare le autorità competenti.

6.3 Metodi e materiale per il contenimento e la bonifica

Per contenimento

Materiale adatto per la rimozione:

Sabbia

Terra

Per la pulizia

Materiale adatto per diluire e neutralizzare:

Acqua

Calce

6.4 Riferimento ad altre sezioni

Smaltimento: vedi sezione 13

Protezione individuale: vedi sezione 8

Manipolazione in sicurezza: vedi sezione 7

SEZIONE 7: Manipolazione e immagazzinamento

7.1 Precauzioni per la manipolazione sicura

Istruzioni per igiene industriale generale

Non mangiare, bere, fumare o fiutare tabacco sul posto di lavoro. rimuovere i vestiti contaminati. Pulizia della pelle subito dopo il lavoro con il prodotto.

Misure di protezione

Istruzioni per una manipolazione sicura

Se maneggiato a contenitore aperto si devono utilizzare dispositivi per l'aspirazione locale. Se l'aspirazione locale risulta impossibile o insufficiente, si dovrebbe garantire possibilmente una buona ventilazione della zona di lavoro.

Misure antincendio

Tenere lontano dal calore (ad es. superfici caldi), scintille e fiamme libere. I vapori sono più pesanti dell'aria. I vapori possono formare con l'aria una miscela esplosiva.

7.2 Condizioni per lo stoccaggio sicuro, comprese eventuali incompatibilità

Requisiti per aree di stoccaggio e contenitori

Materiale adatto a contenitore/impianto:

Vetro

Polietilene

Politetrafluoroetilene (PTFE)

Materiale, resistente agli acidi

Indicazioni per lo stoccaggio comune

Materie da evitare

Non conservare insieme a:

Agente ossidante

Ulteriori indicazioni per le condizioni di conservazione

Conservare sotto chiave. Conservare il recipiente in luogo fresco e ben ventilato.

Proteggere da:

Calore

7.3 Usi finali particolari

Nessun dato disponibile

SEZIONE 8: Controllo dell'esposizione/protezione individuale

8.1 Parametri di controllo

Valori limiti per l'esposizione professionale

No. CAS	Agente	LTV	STV	annotazione
64-19-7	Acetic acid	25 mg/m ³ 10 ppm	50 (1) mg/m ³ 20 (1) ppm	(1) 15 minutes average value Bold-type: Indicative Occupational Exposure Limit Value (IOELV) ~ European Union

LTV = Valore per l'esposizione prolungata sul posto di lavoro

STV = Valore limite per l'esposizione professionale a breve termine

fonte: GESTIS International Limit Values (<http://limitvalue.ifa.dguv.de/>)

processo di controllo e di osservazione: GESTIS Analytical Methods (<http://amcaw.ifa.dguv.de/>)

processo di controllo e di osservazione

refer to: GESTIS – Analytical Methods (http://www.dguv.de/ifa/en/gestis/analytical_methods/index.jsp)

Valori DNEL/PNEC

DNEL Consumatore

tipo

DNEL acuta per inalazione (locale)

Valore 25 mg/m³

tipo

DNEL A lungo termine per inalazione (locale)

Valore 25 mg/m³

DNEL lavoratore

tipo

DNEL acuta per inalazione (locale)

Valore 25 mg/m³

tipo

DNEL A lungo termine per inalazione (locale)

Valore 25 mg/m³

PNEC

Valore 3,058 mg/L

PNEC tipo

PNEC acquatico, acqua dolce

Valore 0,3058 mg/L

PNEC tipo

PNEC acquatico, acqua marina

Valore 30,58 mg/L

PNEC tipo

PNEC acquatico, rilascio periodico

Valore 11,36 mg/kg

PNEC tipo

PNEC sedimento, acqua dolce

Valore 1,136 mg/kg

PNEC tipo

PNEC sedimento, acqua marina

Valore 85 mg/L

PNEC tipo

PNEC impianto di depurazione (STP)

Valore 0,478 mg/kg

annotazione

Estrapolazione

PNEC tipo

terreno

8.2 Controlli dell'esposizione

Controlli tecnici idonei

Misure tecniche per evitare l'esposizione

L'adozione delle misure tecniche appropriate e l'applicazione degli adeguati metodi di lavoro hanno la precedenza rispetto all'uso dei dispositivi personali di sicurezza.

vedi punto 7. Ulteriori indicazioni riguardo alla realizzazione degli impianti elettrici:

Protezione individuale

Protezione occhi/viso

Adatta protezione per gli occhi:

Occhiali di protezione ermetici.

Protezione della pelle

Materiale appropriato:

Butil gomma elastica

Tempo di penetrazione >480 min

Spessore del materiale del guanto 0,3 mm

Guanti consigliati

Produttore

KCI

annotazione

Per il lavoro con sostanze chimiche devono essere indossate esclusivamente guanti protettivi con marchio CE e numero di controllo a quattro cifre. I guanti protettivi devono essere scelti per ogni posto di lavoro a seconda della concentrazione e del tipo delle sostanze nocive presenti. Per quanto riguarda la resistenza alle sostanze chimiche dei suddetti guanti, se usati per applicazioni specifiche, si consiglia di consultarsi con il produttore.

Protezione per il corpo:

Protezione del corpo adeguata:

Sistemi di protezione personali e specifici devono essere selezionati in base alla concentrazione del prodotto e del tipo di utilizzo previsto.

Protezione respiratoria

Protezione delle vie respiratorie necessaria a:

superamento del valore limite

formazione di aerosol o di nebbia

Respiratore adatto:

Apparecchio filtrante (maschera completa o imboccatura) con filtro:

A

Autorespiratore ad aria compressa in circuito aperto (DIN EN 137)

Controlli dell'esposizione ambientale

Misure adottate in funzione della sostanza / miscela per evitare l'esposizione negli usi identificati

Informazioni dettagliate: vedi scenari espositivi in allegato a questo foglio dati sulla sicurezza.

SEZIONE 9: Proprietà fisiche e chimiche

9.1 Informazioni sulle proprietà fisiche e chimiche fondamentali

aspetto

Stato fisico

liquido

Colore

incolore

Odore

pungente

Soglia olfattiva:

0,2-100,1 ppm

I dati fisici sotto sono validi per acido acetico 100 %

		parametro	Metodo - fonte - annotazione
Punto di fusione/punto di congelamento	16,64 °C		
Punto di ebollizione o punto iniziale di ebollizione e intervallo di ebollizione	117,9 °C		
infiammabilità			non determinato
Limite superiore di esplosività	19,9 Vol-%		
limite inferiore di esplosività	4 Vol-%		
Punto d'infiammabilità (°C)	39 °C		geschlossener Tiegel
Temperatura di autoaccensione	463 °C		
Temperatura di decomposizione			non determinato
pH	2,5	Temperatura 20 °C Concentrazione 50 g/L	
Viscosità cinematica			non determinato
Solubilità in acqua	602,9 g/L	Temperatura 25 °C	interamente miscibile
Solubile (g/L) in			non determinato
Liposolubilità			non determinato
Coefficiente di ripartizione: n-ottanolo/acqua	-0,17		
Tensione di vapore	20,79 hPa	Temperatura 25 °C	
Densità e/o densità relativa	1,0446 g/cm³	Temperatura 25 °C	
Densità di vapore relativa	2,07		
caratteristiche delle particelle			non determinato
Viscosità dinamica	1,056 mPa*s	Temperatura 25 °C	
tempo di efflusso			non determinato

9.2 Altre informazioni

Pericoli fisici

Sostanze solide infiammabili

Motivazione rinuncia ai dati

Non sono necessari test in quanto la sostanza è un liquido.

SEZIONE 10: Stabilità e reattività

10.1 Reattività

Non ci sono informazioni disponibili.

10.2 Stabilità chimica

Questo prodotto è stabile se immagazzinato a delle temperature ambiente normali.

10.3 Possibilità di reazioni pericolose

vedere 10.5

10.4 Condizioni da evitare

In caso di riscaldamento:

Pericolo di esplosione

10.5 Materiali incompatibili

Reazione intensa con:

Perossidi

Agente ossidante, forti

Perossido di idrogeno

Alcali (basi), concentrato

Metallo, comune

Stahl

Formazione di:

Idrogeno

10.6 Prodotti di decomposizione pericolosi

Non ci sono informazioni disponibili.

SEZIONE 11: Informazioni tossicologiche

11.1 Informazioni sulle classi di pericolo definite nel regolamento (CE) n. 1272/2008

Tossicità acuta

Tossicità dermale acuta 1060 mg/kg

dosi efficace

LD50:

Specie:

Coniglio

fonte

IUCLID

Tossicità per inalazione acuta (vapore) >16000 mg/kg

dosi efficace

LC50:

Tempo di esposizione 4 h

Specie:

Ratto

Tossicità orale acuta 3310 mg/kg

dosi efficace

LD50:

Specie:

Ratto

Corrosione/irritazione cutanea

Valutazione/classificazione

Corrosivo.

Specie:

Coniglio

fonte

IUCLID

Risultato / valutazione

corrosivo/a.

Sensibilizzazione respiratoria o cutanea

Sensibilizzazione delle vie respiratorie

Valutazione/classificazione

Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti

Effetti CMR (cancerogeni, mutageni, tossici per la riproduzione)

Valutazione complessiva delle caratteristiche CMR

questa sostanza non soddisfa i criteri per le categorie CMR 1A o 1B secondo il CLP.

Mutagenicità delle cellule germinali

Mutagenità in vitro/genotossicità

Metodo

Regolamento (EG) N. 440/2008, Allegato B.13/14 (Test Ames)

Risultato / valutazione

negativo.

Tossicità per la riproduzione

Valutazione/classificazione

Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti

11.2 Informazioni su altri pericoli

Non ci sono informazioni disponibili.

SEZIONE 12: Informazioni ecologiche

12.1 Tossicità

Tossicità per le acque

Tossicità acuta (a breve termine) su pesci >300,82 mg/L

dosi efficace

LC50:

specie

Oncorhynchus mykiss

Metodo

OECD 203

Tossicità acuta (a breve termine) per crostacei 300,82 mg/L

dosi efficace

EC50

Durata del test 48 h

specie

Daphnia magna (grande pulce d'acqua)

Metodo

OCSE 202

Tossicità acuta (a breve termine) per alghe e cianobatteri 300,82 mg/L

dosi efficaci

EC50

Durata del test 72 h

specie

Skeletonema costatum

Metodo

ISO10252

Tossicità terrestre

Effetto su microrganismi terrestri

annotazione

trascurabile

12.2 Persistenza e degradabilità

Biodegradazione

Percentuale di degradazione 96 %

parametro

riduzione della DCO.

Valutazione/classificazione

Facilmente biodegradabile (secondo i criteri OCSE).

Facilmente eliminabile dall'acqua

12.3 Potenziale di bioaccumulo

Coefficiente di ripartizione: n-ottanolo/acqua

Coefficiente di distribuzione (n-octanolo/acqua) (log P O/W): -0,17

Risultato / valutazione

nicht bioakkumulierbar

12.4 Mobilità nel suolo

log Koc: 0,0618

Metodo

EpiSuite QSAR tool

Valutazione/classificazione

Essigsäure weist ein geringes Adsorptionspotenzial auf

12.5 Risultati della valutazione PBT e vPvB

Questa sostanza non soddisfa i criteri PBT/vPvB della normativa REACH, allegato XIII.

12.6 Proprietà di interferenza con il sistema endocrino

Non ci sono informazioni disponibili.

12.7 Altri effetti nocivi

Non ci sono informazioni disponibili.

SEZIONE 13: Considerazioni sullo smaltimento

13.1 Metodi di trattamento dei rifiuti

annotazione

Smaltimento conforme alla Direttiva 2008/98/CE in materia di rifiuti e rifiuti pericolosi.

Direttiva 2008/98/CE (Direttiva quadro sui rifiuti)

Dopo uso conforme

Smaltimento adatto / Prodotto

Smaltimento secondo le direttive 75/442/CEE e 91/689/CEE (e successive modifiche ed integrazioni), relative a rifiuti e rifiuti pericolosi. Smaltimento secondo le norme delle autorità locali.

SEZIONE 14: Informazioni sul trasporto

	Trasporto via terra (ADR/RID)	Trasporto via mare (IMDG)	Trasporto aereo (ICAO-TI / IATA-DGR)
14.1 Numero ONU o numero ID	2789	2789	2789
14.2 denominazione ufficiale per il trasporto	ACIDO ACETICO GLACIALE ACETIC ACID, GLACIAL		Acetic acid, glacial
14.3 Classe(i)	8	8	8
14.4 Gruppo d'imballaggio	II	II	II
14.5 Pericoli per l'ambiente	No	No	No
14.6 Precauzioni speciali per gli utilizzatori	non applicabile	non applicabile	non applicabile
14.7 Trasporto marittimo alla rinfusa conformemente agli atti dell'IMO	non applicabile	non applicabile	non applicabile

Indicazioni aggiuntive - Trasporto via terra (ADR/RID)

Segnale di pericolo	8+3
Codice di classificazione	CF1
Quantità limitata (LQ)	1 L
No. pericolo (no. Kemler)	83
codice di restrizione in galleria	D/E
categoria di trasporto	2

Indicazioni aggiuntive - Trasporto aereo (ICAO-TI / IATA-DGR)

Quantità limitata (LQ)	0,5
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SEZIONE 15: Informazioni sulla regolamentazione

15.1 Disposizioni legislative e regolamentari su salute, sicurezza e ambiente specifiche per la sostanza o la miscela

Normative UE

Autorizzazioni e/o limitazioni all'impiego

Indicazioni sulla restrizione di impiego

Rispettare i limiti all'impiego secondo la direttiva 94/33/CE relativa alla protezione dei giovani sul lavoro.

altre normative UE

Indicazioni con riferimento alla direttiva 1999/13/CE sulla limitazione delle emissioni di composti organici volatili (VOC-RL)

Percentuale di peso di composti organici volatili (COV): 99,9 Peso %

Direttiva 2010/75/EU sulle emissioni industriali [Industrial Emissions Directive]

CAPITOLO V: DISPOSIZIONI SPECIALI PER IMPIANTI E ATTIVITÀ BASATI SULL'UTILIZZO DI SOLVENTI ORGANICI

Percentuale di peso di composti organici volatili (COV): 99,9 Peso %

15.2 Valutazione della sicurezza chimica

Per la sostanza è stata effettuata una della sicurezza chimica.

SEZIONE 16: Altre informazioni

Abbreviazioni ed acronimi

Per le abbreviazioni e gli acronimi vedere: ECHA Orientamenti sugli obblighi d'informazione e sulla valutazione della sicurezza chimica, capitolo R.20 (Tabella dei termini e delle abbreviazioni)

Indicazioni di modifiche

1.1; 2.3; 3.1

Testo delle R-, H- e EUH - frasi (Numero e testo completo)

H226 Liquido e vapori infiammabili.

H314 Provoca gravi ustioni cutanee e gravi lesioni oculari.

Importanti indicazioni di letteratura e fonti di dati

Le indicazioni contenute in questa scheda corrispondono alle nostre conoscenze al momento della messa in stampa. Le informazioni servono per darvi indicazioni circa l'uso sicuro del prodotto indicato sul foglio con i dati di sicurezza, per quanto riguarda la conservazione, la lavorazione, il trasporto e lo smaltimento. Le indicazioni non hanno valore per altri prodotti. Se il prodotto è miscelato con altri materiali o viene lavorato, le indicazioni contenute nel foglio dei dati di sicurezza hanno solo valore indicativo per il nuovo materiale.

Elenco dei CAV attivi 24 ore al giorno:

CAV "Ospedale Pediatrico Bambino Gesù" - Roma - Tel. (+39) 06.6859.3726

CAV "Azienda Ospedaliera Università di Foggia" - Foggia - Tel. 800.183.459

CAV "Azienda Ospedaliera A. Cardarelli" - Napoli - Tel. (+39) 081.545.3333

CAV Policlinico "Umberto I" - Roma - Tel. (+39) 06.4997.8000

CAV Policlinico "A. Gemelli" - Roma - Tel. (+39) 06.305.4343

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CAV Ospedale Niguarda - Milano - Tel. (+39) 02.66.1010.29

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9. EXPOSURE ASSESSMENT (and related risk characterisation)

9.0. Introduction

9.0.1. Overview of uses and Exposure Scenarios

The following table list all the exposure scenarios (ES) assessed in this CSR.

Table 54. Overview of exposure scenarios and contributing scenarios

Identifiers	Market Sector	Titles of exposure scenarios and the related contributing scenarios	Tonnage (tonnes per year)
ES1 - M1		Manufacture - Manufacture [edit] - Manufacture [edit] (ERC 1) - contributing scenario 15 (PROC 1) - contributing scenario 56 (PROC 2) - contributing scenario 37 (PROC 3) - contributing scenario 16 (PROC 4) - contributing scenario 39 (PROC 8a) - contributing scenario 2 (PROC 8b) - Worker contributing scenario 36 (PROC 15) - contributing scenario 67 (PROC 2) - contributing scenario 108 (PROC 8b) - contributing scenario 107 (PROC 8b)	1200000.0
ES2 - F1		Formulation - Formulation [edit] - Formulation [edit] (ERC 2) - contributing scenario 15 (PROC 1) - contributing scenario 56 (PROC 2) - contributing scenario 37 (PROC 3) - contributing scenario 16 (PROC 4) - contributing scenario 30 (PROC 5) - contributing scenario 34 and 22 (PROC 8a) - contributing scenario 100 (PROC 14)	240000.0

Identifiers	Market Sector	Titles of exposure scenarios and the related contributing scenarios	Tonnage (tonnes per year)
		<ul style="list-style-type: none"> - contributing scenario 36 (PROC 15) - contributing scenario 136 (PROC 3) - contributing scenario 2 (PROC 3) - contributing scenario 14 (PROC 8b) - contributing scenario 8 (PROC 8b) - contributing scenario 6 (PROC 9) - contributing scenario 39 (PROC 8a) - contributing scenario 67 (PROC 2) 	
ES3 - F2		Formulation - Distribution <ul style="list-style-type: none"> - Distribution (ERC 3) - contributing scenario 15 (PROC 1) - contributing scenario 56 (PROC 2) - contributing scenario 37 (PROC 3) - contributing scenario 16 (PROC 4) - contributing scenario 2 (PROC 3) - contributing scenarios 14 and 107 (PROC 8b) - contributing scenarios 14 and 108 (PROC 8b) - contributing scenario 6 (PROC 9) - contributing scenario 67 (PROC 2) - contributing scenario 39 (PROC 8a) - contributing scenario 36 (PROC 15) 	1200000.0
ES4 - IW1		Use at industrial site - Use as an intermediate <ul style="list-style-type: none"> - Use as an intermediate (ERC 6a) - contributing scenario 15 (PROC 1) - contributing scenario 56 (PROC 2) - contributing scenario 37 (PROC 3) - contributing scenario 16 (PROC 4) - contributing scenario 39 (PROC 8a) - contributing scenario 2 (PROC 8b) - Worker contributing scenario 36 (PROC 15) - contributing scenario 67 (PROC 2) 	960000.0

Identifiers	Market Sector	Titles of exposure scenarios and the related contributing scenarios	Tonnage (tonnes per year)
		- contributing scenario 108 (PROC 8b) - contributing scenario 107 (PROC 8b)	
ES5 - IW2		Use at industrial site - Use at industrial site - Use in cleaning agents - Use at industrial site - Use in cleaning agents (ERC 4) - contributing scenarios 93, 38 and 101 (PROC 2) - contributing scenarios 93, 38 and 8 (PROC 3) - contributing scenario 37 and occupational scenario 129 (PROC 4) - contributing scenario 44 (PROC 7) - contributing scenario 14 (PROC 8a) - contributing scenarios 45 and 81 (PROC 8b) - contributing scenarios 42 and 34 (PROC 10) - contributing scenario 41 (PROC 13) - contributing scenario 39 (PROC 8a) - contributing scenarios 67 and 137 (PROC 2)	56000.0
ES6 - IW3		Use at industrial site - Use at industrial site - Use in laboratories - Use at industrial site - Use in laboratories (ERC 4) - Worker contributing scenario 36 (PROC 15) - contributing scenario 47 (PROC 10)	56000.0
ES7 - IW4		Use at industrial site - Use at industrial site - Use in water treatments - Use at industrial site - Use in water treatments (ERC 4) - contributing scenario 67 (PROC 1) - contributing scenarios 14 and 137 (PROC 2) - contributing scenarios 15 and 55 (PROC 3) - contributing scenario 5 (PROC 8a) - contributing scenarios 8 and 81 (PROC 8b)	56000.0

Identifiers	Market Sector	Titles of exposure scenarios and the related contributing scenarios	Tonnage (tonnes per year)
		- contributing scenario 16 (PROC 4) - contributing scenarios 9 and 35 (PROC 13)	
ES8 - IW5		Use at industrial site - Use at industrial site - Hydraulic fracturing in oil and gas operations - Use at industrial site [edit] (ERC 4) - Worker contributing scenario [edit] (PROC 1) - Worker contributing scenario [edit] (PROC 2) - Worker contributing scenario [edit] (PROC 3) - Worker contributing scenario [edit] (PROC 4) - Worker contributing scenario [edit] (PROC 8a) - Worker contributing scenario [edit] (PROC 8b)	3000.0
ES9 - PW1		Use by professional worker - Use by professional worker - Use as cleaning agent - Use by professional worker - Use as cleaning agent (ERC 8d) - Worker contributing scenario [edit] (PROC 1) - contributing scenarios 93 and 38 (PROC 2) - contributing scenario 93, 38 and 8 (PROC 3) - contributing scenario 76 (PROC 4) - contributing scenario 45 (PROC 8a) - contributing scenarios 45 and 81 (PROC 8b) - contributing scenarios 42, 51 and 60 (PROC 10) - contributing scenarios 44 and 10 (PROC 11) - contributing scenario 34, 47, 48 and 4 (PROC 13) - contributing scenarios 34, 48, 47 and 10 (PROC 10) - contributing scenarios 27 and 51 (PROC 10) - contributing scenario 101 (PROC 4) - contributing scenario 74 (PROC 4) - contributing scenario 39 (PROC 8a) - contributing scenarios 67 and 137 (PROC 2)	3000.0
ES10 - PW2		Use by professional worker - Use by professional	3000.0

Identifiers	Market Sector	Titles of exposure scenarios and the related contributing scenarios	Tonnage (tonnes per year)
		worker - Use in laboratories - Use by professional worker - Use in laboratories (ERC 8d) - contributing scenarios 47, 51 and 103 (PROC 10) - contributing scenarios 36, 61 and 139 (PROC 15)	
ES11 - PW3		Use by professional worker - Use by professional worker - Use in water treatment - Use by professional worker - Use in water treatment (ERC 8d) - contributing scenario 67 (PROC 1) - contributing scenarios 15 and 55 (PROC 3) - contributing scenario 16 (PROC 4) - contributing scenarios 5 and 82 (PROC 8a) - contributing scenarios 81 and 8 (PROC 8b) - contributing scenarios 9 and 35 (PROC 13)	3000.0
ES12 - C1		Consumer Use - Consumer Use - Use as a cleaning agent - Consumer Use - Use as a cleaning agent (ERC 8d) - Consumer contributing scenario - Air care products--Air care, instant action (aerosol sprays) (PC 3) - Consumer contributing scenario - Air care products--Air care, continuous action (solid and liquid) (PC 3) - Consumer contributing scenario - Anti-freeze and de-icing product-Washing car window (PC 4) - Consumer contributing scenario - Anti-freeze and de-icing products--Pouring into radiator (PC 4) - Consumer contributing scenario - Anti-freeze and de-icing products--Lock de-icer (PC 4) - Consumer contributing scenario - Biocidal products (excipient use only for solvent products)--Laundry and dish washing products (PC 8)	3000.0

Identifiers	Market Sector	Titles of exposure scenarios and the related contributing scenarios	Tonnage (tonnes per year)
		<ul style="list-style-type: none"> - Consumer contributing scenario - Biocidal products (excipient use only for solvent products)--Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners) (PC 8) - Consumer contributing scenario - Biocidal products (excipient use only for solvent products)--Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) (PC 8) - Consumer contributing scenario - Coatings and paints, fillers putties, thinners--Waterborne latex wall paint (PC 9a) - Consumer contributing scenario - Coatings and paints, fillers putties, thinners--Solvent rich, high solid, water borne paint (PC 9a) - Consumer contributing scenario - Coatings and paints, fillers putties, thinners--Aerosol spray can (PC 9a) - Consumer contributing scenario - Coatings and paints, fillers putties, thinners--Removers (paint-, glue-, wall paper-, sealant-remover) (PC 9a) - Consumer contributing scenario - Fillers, putties, plasters, modeling clay--Plasters and floor equalizers (PC 9b) - Consumer contributing scenario - Fillers, putties, plasters, modeling clay--Modelling clay (PC 9b) - Consumer contributing scenario - Fillers, putties, plasters, modeling clay--Fillers and putty (PC 9b) - Consumer contributing scenario - Finger paints - Finger paints (PC 9c) - Consumer contributing scenario - Lubricants, 	

Identifiers	Market Sector	Titles of exposure scenarios and the related contributing scenarios	Tonnage (tonnes per year)
		greases, and release products--Pastes (PC 24) - Consumer contributing scenario - Lubricants, greases, and release products--Sprays (PC 24) - Consumer contributing scenario - Lubricants, greases, and release products--Liquids (PC 24) - Consumer contributing scenario - Washing and cleaning products (including solvent based products)--Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners) (PC 35) - Consumer contributing scenario - Washing and cleaning products (including solvent based products)--Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) (PC 35) - Consumer contributing scenario - Welding and soldering products, flux products--NOTE, n_assessment not in TRA (PC 38) - Consumer contributing scenario - Washing and cleaning products (including solvent based products)--Laundry and dish washing products (PC 35)	
ES13 - C2		Consumer Use - Consumer Use - Agrochemical - Consumer Use - Agricultural use (ERC 8d) - Consumer contributing scenario [edit] (PC 12) - Consumer contributing scenario [edit] (PC 27)	3000.0
ES14 - C3		Consumer Use - Consumer Use - pH adjustment of textile dyes - Consumer Use - pH adjustment of textile dyes (ERC 9a) - Consumer contributing scenario [edit] (PC 34)	3000.0
ES15 - IW6		Use at industrial site - Use at industrial site - Use in oil field drilling	50000.0

Identifiers	Market Sector	Titles of exposure scenarios and the related contributing scenarios	Tonnage (tonnes per year)
		<ul style="list-style-type: none"> - Use at industrial site - Use in oil field drilling (ERC 4) - contributing scenarios 55 and 137 (PROC 2) - contributing scenario 116 (PROC 3) - contributing scenario 116 (PROC 4) - contributing scenario 117 (PROC 8a) - contributing scenario 14 (PROC 8b) - contributing scenario 45 (PROC 8b) - contributing scenario 118 (PROC 4) - contributing scenario 119 (PROC 4) - contributing scenario 121 (PROC 3) - contributing scenario 2 (PROC 3) - contributing scenario 15 (PROC 1) - contributing scenario 9 (PROC 8a) - contributing scenario 16 (PROC 4) - contributing scenario 39 (PROC 8a) - contributing scenario 55 (PROC 1) 	
ES16 - PW4		Use by professional worker - Use by professional worker - Agrochemical uses - Use by professional worker - Agrochemical uses (ERC 8d) - contributing scenario 67 (PROC 1) - contributing scenarios 67 and 137 (PROC 2) - contributing scenario 23 (PROC 4) - contributing scenarios 26 and 82 (PROC 8a) - contributing scenario 22 (PROC 8b) - contributing scenario 24 (PROC 11) - contributing scenario 27 (PROC 13) - contributing scenarios 28 and 82 (PROC 8a)	3000.0
Manufacture: M-#, Formulation: F-#, Industrial end use at site: IW-#, Professional end use: PW-#, Consumer end use: C-#, Service life (by workers in industrial site): SL-IW-#, Service life (by professional workers): SL-PW-#, Service life (by consumers): SL-C-#.)			

9.0.2. Introduction to the assessment

9.0.2.1. Environment

Scope and type of assessment

The scope of exposure assessment and type of risk characterisation required for the environment are described in the following table based on the hazard conclusions presented in section 7.

Table 55. Type of risk characterisation required for the environment

Protection target	Type of risk characterisation	Hazard conclusion (see section 7)
Freshwater	Quantitative	PNEC aqua (freshwater) = 3.058 mg/L
Sediment (freshwater)	Quantitative	PNEC sediment (freshwater) = 11.36 mg/kg sediment dw
Marine water	Quantitative	PNEC aqua (marine water) = 0.306 mg/L
Sediment (marine water)	Quantitative	PNEC sediment (marine water) = 1.136 mg/kg sediment dw
Sewage treatment plant	Quantitative	PNEC STP = 85 mg/L
Air	Undefined (hazard conclusion missing) CAUTION: No hazard conclusion or no PNEC value provided in IUCLID section 6	
Agricultural soil	Quantitative	PNEC soil = 0.47 mg/kg soil dw
Predator	Undefined (hazard conclusion missing) CAUTION: No hazard conclusion or no PNEC value provided in IUCLID section 6	

Comments on assessment approach:

The regional concentrations are reported in section 10.2.1.2 (see Table 251, "Predicted regional exposure concentrations (Regional PEC)"). The local Predicted Exposure Concentrations (PECs) reported for each contributing scenario correspond to the sum of the local concentrations (Clocal) and the regional concentrations (PEC regional).

Caution: The exposure estimates have been obtained with EUSES although the following parameter(s) is/are outside the boundaries of the EUSES model:

- Water solubility (6.029E5 mg/L)

9.0.2.2. Man via environment

Scope and type of assessment

Exposure assessment and risk characterization are not required for man via the environment as no hazard has been identified for long term systemic effects.

9.0.2.3. Workers

Scope and type of assessment

The scope of exposure assessment and type of risk characterisation required for workers are described in the following table based on the hazard conclusions presented in section 5.11.

Table 56. Type of risk characterisation required for workers

Route	Type of effect	Type of risk characterisation	Hazard conclusion (see section 5.11)
Inhalation	Systemic, long-term	Not needed	No hazard identified
	Systemic, acute	Not needed	No hazard identified
	Local, long-term	Quantitative	DNEL (Derived No Effect Level) = 25 mg/m ³
	Local, acute	Quantitative	DNEL (Derived No Effect Level) = 25 mg/m ³
Dermal	Systemic, long-term	Not needed	No hazard identified
	Systemic, acute	Not needed	No hazard identified

Route	Type of effect	Type of risk characterisation	Hazard conclusion (see section 5.11)
	Local, long-term	Qualitative	Medium hazard (no threshold derived)
	Local, acute	Qualitative	Medium hazard (no threshold derived)
Eye	Local	Qualitative	Medium hazard (no threshold derived)

9.0.2.4. Consumers

Scope and type of assessment

The scope of exposure assessment and type of risk characterisation required for consumers are described in the following table based on the hazard conclusions presented in section 5.11.

Table 57. Type of risk characterisation required for consumers

Route	Type of effect	Type of risk characterisation	Hazard conclusion (see section 5.11)
Inhalation	Systemic, long-term	Not needed	No hazard identified
	Systemic, acute	Not needed	No hazard identified
	Local, long-term	Quantitative	DNEL (Derived No Effect Level) = 25 mg/m ³
	Local, acute	Quantitative	DNEL (Derived No Effect Level) = 25 mg/m ³
Dermal	Systemic, long-term	Not needed	No hazard identified
	Systemic, acute	Not needed	No hazard identified
	Local, long-term	Qualitative	Medium hazard (no threshold derived)
	Local, acute	Qualitative	Medium hazard (no threshold derived)
Eye	Local	Qualitative	Medium hazard (no threshold derived)
Oral	Systemic, long-term	Not needed	No hazard identified

9.1. Exposure scenario 1: Manufacture - Manufacture

Environment contributing scenario(s):	
Manufacture [edit]	ERC 1
Worker contributing scenario(s):	
contributing scenario 15	PROC 1
contributing scenario 56	PROC 2
contributing scenario 37	PROC 3
contributing scenario 16	PROC 4
contributing scenario 39	PROC 8a
contributing scenario 2	PROC 8b
Worker contributing scenario 36	PROC 15
contributing scenario 67	PROC 2
contributing scenario 108	PROC 8b
contributing scenario 107	PROC 8b

9.1.1. Environmental contributing scenario 1: Manufacture

9.1.1.1. Conditions of use

Amount used, frequency and duration of use (or from service life)
• Daily use at site: $\leq 2.191E3$ tonnes/day
• Annual use at a site: $\leq 8E5$ tonnes/year
• Percentage of EU tonnage used at regional scale: = 100 %
Conditions and measures related to sewage treatment plant
• Municipal STP: Yes [Effectiveness Water: 87.36%]
• Discharge rate of STP: $\geq 2E3$ m ³ /d
• Application of the STP sludge on agricultural soil: Yes
Conditions and measures related to treatment of waste (including article waste)
• Particular considerations on the waste treatment operations: No (low risk) (ERC based assessment demonstrating control of risk with default conditions. Low risk assumed for waste life stage. Waste

disposal according to national/local legislation is sufficient.)
Other conditions affecting environmental exposure
• Receiving surface water flow rate: $\geq 1.8E4$ m ³ /d

9.1.1.2. Releases

The local releases to the environment are reported in the following table.

Table 58. Local releases to the environment

Release	Release factor estimation method	Explanation / Justification
Water	Release factor (Calculated data)	Initial release factor: 0.004% Final release factor: 0.004% Local release rate: 78.88 kg/day Explanation / Justification: Release factor calculated based on measured sector data
Air	Release factor (ESVOC 1.1.v1)	Initial release factor: 0.5% Final release factor: 0.5% Local release rate: 1.096E4 kg/day Explanation / Justification: ESVOC 1.1.v1 also known as ESVOC 1
Soil	Release factor (ESVOC 1.1.v1)	Final release factor: 0% Explanation / Justification: ESVOC 1.1.v1 also known as ESVOC 1

9.1.1.3. Exposure and risks for the environment and man via the environment

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 59. Exposure concentrations and risks for the environment

Protection target	Exposure concentration	Risk characterisation
Freshwater	Local PEC: 0.679 mg/L	RCR = 0.222
Sediment (freshwater)	Local PEC: 2.523 mg/kg dw	RCR = 0.222
Marine water	Local PEC: 0.067 mg/L	RCR = 0.218
Sediment (marine water)	Local PEC: 0.248 mg/kg dw	RCR = 0.218

Protection target	Exposure concentration	Risk characterisation
Predator (freshwater)		
Predator (marine water)		
Top predator (marine water)		
Sewage treatment plant	Local PEC: 4.986 mg/L	RCR = 0.059
Air		
Agricultural soil	Local PEC: 0.345 mg/kg dw	RCR = 0.734
Predator (terrestrial)		

Table 60. Contribution to oral intake for man via the environment from local contribution

Type of food	Estimated daily dose	Concentration in food
Drinking water	0.062 mg/kg bw/day	2.155 mg/L
Fish	0.004 mg/kg bw/day	2.147 mg/kg ww
Leaf crops	1.162 mg/kg bw/day	67.8 mg/kg ww
Root crops	0.011 mg/kg bw/day	2.022 mg/kg ww
Meat	1.733E-5 mg/kg bw/day	0.004 mg/kg ww
Milk	3.23E-4 mg/kg bw/day	0.04 mg/kg ww

9.1.2. Worker contributing scenario 1: contributing scenario 15 (PROC 1)

9.1.2.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Closed system (minimal contact during routine operations)	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0

	Method
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.1.2.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 61. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.025 mg/m³ (TRA Workers 3.0)	RCR < 0.01
Inhalation, local, acute	0.1 mg/m³ (TRA Workers 3.0)	RCR < 0.01
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.1.3. Worker contributing scenario 2: contributing scenario 56 (PROC 2)

9.1.3.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0

	Method
Technical and organisational conditions and measures	
• Containment: Closed continuous process with occasional controlled exposure	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Outdoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.1.3.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 62. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.175 mg/m³ (TRA Workers 3.0)	RCR < 0.01
Inhalation, local, acute	3.503 mg/m³ (TRA Workers 3.0)	RCR = 0.14
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.1.4. Worker contributing scenario 3: contributing scenario 37 (PROC 3)

9.1.4.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Closed batch process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.1.4.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 63. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.5 mg/m³ (TRA Workers 3.0)	RCR = 0.02
Inhalation, local, acute	10.01 mg/m³ (TRA Workers 3.0)	RCR = 0.4
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.1.5. Worker contributing scenario 4: contributing scenario 16 (PROC 4)

9.1.5.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.1.5.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 64. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1.001 mg/m³ (TRA Workers 3.0)	RCR = 0.04
Inhalation, local, acute	20.02 mg/m³ (TRA Workers 3.0)	RCR = 0.801
Dermal, local, long-term		Qualitative (see below)

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.1.6. Worker contributing scenario 5: contributing scenario 39 (PROC 8a)

9.1.6.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.1.6.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 65. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.751 mg/m ³ (TRA Workers 3.0)	RCR = 0.03
Inhalation, local, acute	15.01 mg/m ³ (TRA Workers 3.0)	RCR = 0.6
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.1.7. Worker contributing scenario 6: contributing scenario 2 (PROC 8b)

9.1.7.1. Conditions of use

Process sampling

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 15 minutes	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 95%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	

	Method
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.1.7.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 66. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.313 mg/m ³ (TRA Workers 3.0)	RCR = 0.013
Inhalation, local, acute	12.51 mg/m ³ (TRA Workers 3.0)	RCR = 0.5
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.1.8. Worker contributing scenario 7: Worker contributing scenario 36 (PROC 15)

9.1.8.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Good general ventilation (3-5 air changes per hour)	TRA Workers 3.0

	Method
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.1.8.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 67. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.35 mg/m³ (TRA Workers 3.0)	RCR = 0.014
Inhalation, local, acute	7.006 mg/m³ (TRA Workers 3.0)	RCR = 0.28
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.1.9. Worker contributing scenario 8: contributing scenario 67 (PROC 2)

9.1.9.1. Conditions of use

Storage

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour)	TRA Workers 3.0
• Containment: Closed continuous process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.1.9.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 18. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	3.753 mg/m ³ (TRA Workers 3.0)	RCR = 0.15
Inhalation, local, acute	15.01 mg/m ³ (TRA Workers 3.0)	RCR = 0.6

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.1.10. Worker contributing scenario 9: contributing scenario 108 (PROC 8b)

9.1.10.1. Conditions of use

Bulk transfers (open systems)

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 95%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.1.10.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 69. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.626 mg/m ³ (TRA Workers 3.0)	RCR = 0.025
Inhalation, local, acute	12.51 mg/m ³ (TRA Workers 3.0)	RCR = 0.5
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.1.11. Worker contributing scenario 10: contributing scenario 107 (PROC 8b)

9.1.11.1. Conditions of use

Bulk transfer (closed system)

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 95%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	

	Method
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.1.11.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 70. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.626 mg/m³ (TRA Workers 3.0)	RCR = 0.025
Inhalation, local, acute	12.51 mg/m³ (TRA Workers 3.0)	RCR = 0.5
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.2. Exposure scenario 2: Formulation - Formulation

Environment contributing scenario(s):	
Formulation [edit]	ERC 2
Worker contributing scenario(s):	
contributing scenario 15	PROC 1
contributing scenario 56	PROC 2
contributing scenario 37	PROC 3
contributing scenario 16	PROC 4
contributing scenario 30	PROC 5
contributing scenario 34 and 22	PROC 8a
contributing scenario 100	PROC 14
contributing scenario 36	PROC 15
contributing scenario 136	PROC 3
contributing scenario 2	PROC 3
contributing scenario 14	PROC 8b
contributing scenario 8	PROC 8b
contributing scenario 6	PROC 9
contributing scenario 39	PROC 8a
contributing scenario 67	PROC 2

9.2.1. Environmental contributing scenario 1: Formulation

9.2.1.1. Conditions of use

Amount used, frequency and duration of use (or from service life)
• Daily use at site: <= 82.19 tonnes/day
• Annual use at a site: <= 3E4 tonnes/year
• Percentage of EU tonnage used at regional scale: = 100 %
Conditions and measures related to sewage treatment plant
• Municipal STP: Yes [Effectiveness Water: 87.36%]

• Discharge rate of STP: $\geq 2E3$ m ³ /d
• Application of the STP sludge on agricultural soil: Yes
Conditions and measures related to treatment of waste (including article waste)
• Particular considerations on the waste treatment operations: No (low risk) (ERC based assessment demonstrating control of risk with default conditions. Low risk assumed for waste life stage. Waste disposal according to national/local legislation is sufficient.)
Other conditions affecting environmental exposure
• Receiving surface water flow rate: $\geq 1.8E4$ m ³ /d

9.2.1.2. Releases

The local releases to the environment are reported in the following table.

Table 71. Local releases to the environment

Release	Release factor estimation method	Explanation / Justification
Water	Release factor (Measured sector data)	Initial release factor: 0.004% Final release factor: 0.004% Local release rate: 3.288 kg/day Explanation / Justification: Release factor calculated based on measured sector data
Air	Release factor (ESVOC SpERC 2.2.v1)	Initial release factor: 2.5% Final release factor: 2.5% Local release rate: 2.055E3 kg/day Explanation / Justification: ESVOC SpERC 2.2.v1 also known as ESVOC 4 sPERC
Soil	Release factor (ESVOC SpERC 2.2.v1)	Final release factor: 0.01% Explanation / Justification: ESVOC SpERC 2.2.v1 also known as ESVOC 4 sPERC

9.2.1.3. Exposure and risks for the environment and man via the environment

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 72. Exposure concentrations and risks for the environment

Protection target	Exposure concentration	Risk characterisation
Freshwater	Local PEC: 0.201 mg/L	RCR = 0.066
Sediment (freshwater)	Local PEC: 0.748 mg/kg dw	RCR = 0.066
Marine water	Local PEC: 0.019 mg/L	RCR = 0.062
Sediment (marine water)	Local PEC: 0.071 mg/kg dw	RCR = 0.062
Predator (freshwater)		
Predator (marine water)		
Top predator (marine water)		
Sewage treatment plant	Local PEC: 0.208 mg/L	RCR < 0.01
Air		
Agricultural soil	Local PEC: 0.069 mg/kg dw	RCR = 0.148
Predator (terrestrial)		

Table 73. Contribution to oral intake for man via the environment from local contribution

Type of food	Estimated daily dose	Concentration in food
Drinking water	0.013 mg/kg bw/day	0.442 mg/L
Fish	0.001 mg/kg bw/day	0.636 mg/kg ww
Leaf crops	0.218 mg/kg bw/day	12.74 mg/kg ww
Root crops	0.002 mg/kg bw/day	0.415 mg/kg ww
Meat	3.264E-6 mg/kg bw/day	7.59E-4 mg/kg ww
Milk	6.083E-5 mg/kg bw/day	0.008 mg/kg ww

9.2.2. Worker contributing scenario 1: contributing scenario 15 (PROC 1)

9.2.2.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	

	Method
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Closed system (minimal contact during routine operations)	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): <= 40 °C	TRA Workers 3.0

9.2.2.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 74. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.025 mg/m³ (TRA Workers 3.0)	RCR < 0.01
Inhalation, local, acute	0.1 mg/m³ (TRA Workers 3.0)	RCR < 0.01
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.2.3. Worker contributing scenario 2: contributing scenario 56 (PROC 2)

9.2.3.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• Containment: Closed continuous process with occasional controlled exposure	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Outdoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.2.3.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 75. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.175 mg/m³ (TRA Workers 3.0)	RCR < 0.01
Inhalation, local, acute	3.503 mg/m³ (TRA Workers 3.0)	RCR = 0.14
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.2.4. Worker contributing scenario 3: contributing scenario 37 (PROC 3)

9.2.4.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Closed batch process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.2.4.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 76. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.5 mg/m³ (TRA Workers 3.0)	RCR = 0.02
Inhalation, local, acute	10.01 mg/m³ (TRA Workers 3.0)	RCR = 0.4
Dermal, local, long-term		Qualitative (see below)

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.2.5. Worker contributing scenario 4: contributing scenario 16 (PROC 4)

9.2.5.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.2.5.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 77. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1.001 mg/m³ (TRA Workers 3.0)	RCR = 0.04
Inhalation, local, acute	20.02 mg/m³ (TRA Workers 3.0)	RCR = 0.801
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.2.6. Worker contributing scenario 5: contributing scenario 30 (PROC 5)

9.2.6.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0

	Method
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.2.6.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 78. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1.251 mg/m³ (TRA Workers 3.0)	RCR = 0.05
Inhalation, local, acute	5.004 mg/m³ (TRA Workers 3.0)	RCR = 0.2
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.2.7. Worker contributing scenario 6: contributing scenario 34 and 22 (PROC 8a)

9.2.7.1. Conditions of use

contributing scenario 34: Manual contributing scenario 22: Transfer from/pouring from containers

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0

	Method
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.2.7.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 79. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.25 mg/m³ (TRA Workers 3.0)	RCR = 0.01
Inhalation, local, acute	5.004 mg/m³ (TRA Workers 3.0)	RCR = 0.2
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.2.8. Worker contributing scenario 7: contributing scenario 100 (PROC 14)

9.2.8.1. Conditions of use

contributing scenario 100 - Production or preparation of articles by tableting, compression, extrusion or pelletisation

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0

	Method
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.2.8.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 80. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1.251 mg/m³ (TRA Workers 3.0)	RCR = 0.05
Inhalation, local, acute	5.004 mg/m³ (TRA Workers 3.0)	RCR = 0.2
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.2.9. Worker contributing scenario 8: contributing scenario 36 (PROC 15)

9.2.9.1. Conditions of use

contributing scenario 36 - Laboratory activities

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Good general ventilation (3-5 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.2.9.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 81. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.35 mg/m³ (TRA Workers 3.0)	RCR = 0.014
Inhalation, local, acute	7.006 mg/m³ (TRA Workers 3.0)	RCR = 0.28
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.2.10. Worker contributing scenario 9: contributing scenario 136 (PROC 3)

9.2.10.1. Conditions of use

contributing scenario 136 - Batch processes at elevated temperatures

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Closed batch process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.2.10.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 82. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.5 mg/m³ (TRA Workers 3.0)	RCR = 0.02
Inhalation, local, acute	10.01 mg/m³ (TRA Workers 3.0)	RCR = 0.4
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.2.11. Worker contributing scenario 10: contributing scenario 2 (PROC 3)

9.2.11.1. Conditions of use

contributing scenario 2 - Process sampling

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 15 minutes	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Closed batch process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%] <i>Sample via closed loop or other system to avoid exposure equivalent to LEV reduction</i>	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0

	Method
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.2.11.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 83. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.25 mg/m³ (TRA Workers 3.0)	RCR = 0.01
Inhalation, local, acute	10.01 mg/m³ (TRA Workers 3.0)	RCR = 0.4
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.2.12. Worker contributing scenario 11: contributing scenario 14 (PROC 8b)

9.2.12.1. Conditions of use

contributing scenario 14 - Bulk transfers

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0

	Method
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 95%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.2.12.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 84. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.626 mg/m³ (TRA Workers 3.0)	RCR = 0.025
Inhalation, local, acute	12.51 mg/m³ (TRA Workers 3.0)	RCR = 0.5
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.2.13. Worker contributing scenario 12: contributing scenario 8 (PROC 8b)

9.2.13.1. Conditions of use

contributing scenario 8 - Drum/batch transfers

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 95%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.2.13.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 85. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.626 mg/m³ (TRA Workers 3.0)	RCR = 0.025
Inhalation, local, acute	12.51 mg/m³ (TRA Workers 3.0)	RCR = 0.5
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.2.14. Worker contributing scenario 13: contributing scenario 6 (PROC 9)

9.2.14.1. Conditions of use

contributing scenario 6 - Drum and small package filling

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.2.14.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 86. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1.251 mg/m³ (TRA Workers 3.0)	RCR = 0.05
Inhalation, local, acute	5.004 mg/m³ (TRA Workers 3.0)	RCR = 0.2
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.2.15. Worker contributing scenario 14: contributing scenario 39 (PROC 8a)

9.2.15.1. Conditions of use

contributing scenario 39 - Equipment cleaning and maintenance

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 4 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%] <i>LEV effectiveness assumed to equate to SOP relating to draining etc prior to maintenance. RPE (0.1x)</i>	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0

	Method
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.2.15.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 87. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.751 mg/m³ (TRA Workers 3.0)	RCR = 0.03
Inhalation, local, acute	5.004 mg/m³ (TRA Workers 3.0)	RCR = 0.2
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.2.16. Worker contributing scenario 15: contributing scenario 67 (PROC 2)

9.2.16.1. Conditions of use

contributing scenario 67 - Storage

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	

	Method
• Duration of activity: < 15 minutes	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Good general ventilation (3-5 air changes per hour)	TRA Workers 3.0
• Containment: Closed continuous process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.2.16.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 88. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.088 mg/m³ (TRA Workers 3.0)	RCR < 0.01
Inhalation, local, acute	3.503 mg/m³ (TRA Workers 3.0)	RCR = 0.14
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.3. Exposure scenario 3: Formulation - Distribution

Environment contributing scenario(s):	
Distribution	ERC 3
Worker contributing scenario(s):	
contributing scenario 15	PROC 1
contributing scenario 56	PROC 2
contributing scenario 37	PROC 3
contributing scenario 16	PROC 4
contributing scenario 2	PROC 3
contributing scenarios 14 and 107	PROC 8b
contributing scenarios 14 and 108	PROC 8b
contributing scenario 6	PROC 9
contributing scenario 67	PROC 2
contributing scenario 39	PROC 8a
contributing scenario 36	PROC 15

9.3.1. Environmental contributing scenario 1: Distribution

9.3.1.1. Conditions of use

Amount used, frequency and duration of use (or from service life)
• Daily use at site: $\leq 2.192E3$ tonnes/day
• Annual use at a site: $\leq 8E5$ tonnes/year
• Percentage of EU tonnage used at regional scale: = 100 %
Conditions and measures related to sewage treatment plant
• Municipal STP: Yes [Effectiveness Water: 87.36%]
• Discharge rate of STP: $\geq 2E3$ m ³ /d
• Application of the STP sludge on agricultural soil: Yes
Conditions and measures related to treatment of waste (including article waste)
• Particular considerations on the waste treatment operations: No (low risk) (ERC based assessment)

demonstrating control of risk with default conditions. Low risk assumed for waste life stage. Waste disposal according to national/local legislation is sufficient.)

Other conditions affecting environmental exposure

- Receiving surface water flow rate: $\geq 1.8E4$ m³/d

9.3.1.2. Releases

The local releases to the environment are reported in the following table.

Table 89. Local releases to the environment

Release	Release factor estimation method	Explanation / Justification
Water	Release factor (ESVOC SpERC 1.1b.v1)	Initial release factor: 0.001% Final release factor: 0.001% Local release rate: 21.92 kg/day Explanation / Justification: ESVOC SpERC 1.1b.v1 also called ESVOC 3 SpERC
Air	Release factor (ESVOC SpERC 1.1b.v1)	Initial release factor: 0.01% Final release factor: 0.01% Local release rate: 219.2 kg/day Explanation / Justification: ESVOC SpERC 1.1b.v1 also called ESVOC 3 SpERC
Soil	Release factor (ESVOC SpERC 1.1b.v1)	Final release factor: 0% Explanation / Justification: ESVOC SpERC 1.1b.v1 also called ESVOC 3 SpERC

9.3.1.3. Exposure and risks for the environment and man via the environment

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 90. Exposure concentrations and risks for the environment

Protection target	Exposure concentration	Risk characterisation
Freshwater	Local PEC: 0.319 mg/L	RCR = 0.104
Sediment (freshwater)	Local PEC: 1.186 mg/kg dw	RCR = 0.104
Marine water	Local PEC: 0.031 mg/L	RCR = 0.101

Protection target	Exposure concentration	Risk characterisation
Sediment (marine water)	Local PEC: 0.114 mg/kg dw	RCR = 0.101
Predator (freshwater)		
Predator (marine water)		
Top predator (marine water)		
Sewage treatment plant	Local PEC: 1.386 mg/L	RCR = 0.016
Air		
Agricultural soil	Local PEC: 0.017 mg/kg dw	RCR = 0.036
Predator (terrestrial)		

Table 91. Contribution to oral intake for man via the environment from local contribution

Type of food	Estimated daily dose	Concentration in food
Drinking water	0.009 mg/kg bw/day	0.319 mg/L
Fish	0.002 mg/kg bw/day	1.009 mg/kg ww
Leaf crops	0.024 mg/kg bw/day	1.389 mg/kg ww
Root crops	4.898E-4 mg/kg bw/day	0.089 mg/kg ww
Meat	4.068E-7 mg/kg bw/day	9.46E-5 mg/kg ww
Milk	7.581E-6 mg/kg bw/day	9.46E-4 mg/kg ww

9.3.2. Worker contributing scenario 1: contributing scenario 15 (PROC 1)

9.3.2.1. Conditions of use

contributing scenario 15: General exposures (closed systems)

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0

	Method
• Containment: Closed system (minimal contact during routine operations)	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.3.2.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 92. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.025 mg/m ³ (TRA Workers 3.0)	RCR < 0.01
Inhalation, local, acute	0.1 mg/m ³ (TRA Workers 3.0)	RCR < 0.01
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.3.3. Worker contributing scenario 2: contributing scenario 56 (PROC 2)

9.3.3.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• Containment: Closed continuous process with occasional controlled exposure	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Outdoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.3.3.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 93. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.175 mg/m³ (TRA Workers 3.0)	RCR < 0.01
Inhalation, local, acute	3.503 mg/m³ (TRA Workers 3.0)	RCR = 0.14
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.3.4. Worker contributing scenario 3: contributing scenario 37 (PROC 3)

9.3.4.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Closed batch process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.3.4.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 94. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.5 mg/m³ (TRA Workers 3.0)	RCR = 0.02
Inhalation, local, acute	10.01 mg/m³ (TRA Workers 3.0)	RCR = 0.4
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.3.5. Worker contributing scenario 4: contributing scenario 16 (PROC 4)

9.3.5.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.3.5.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 95. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1.001 mg/m ³ (TRA Workers 3.0)	RCR = 0.04
Inhalation, local, acute	20.02 mg/m ³ (TRA Workers 3.0)	RCR = 0.801
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.3.6. Worker contributing scenario 5: contributing scenario 2 (PROC 3)

9.3.6.1. Conditions of use

contributing scenario 2 - Process sampling

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 15 minutes	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Closed batch process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%] <i>Sample via closed loop or other system to avoid exposure equivalent to LEV reduction</i>	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0

	Method
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.3.6.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 96. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.25 mg/m³ (TRA Workers 3.0)	RCR = 0.01
Inhalation, local, acute	10.01 mg/m³ (TRA Workers 3.0)	RCR = 0.4
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.3.7. Worker contributing scenario 6: contributing scenarios 14 and 107 (PROC 8b)

9.3.7.1. Conditions of use

contributing scenario 14 - Bulk transfers contributing scenario 107 - closed systems

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	

	Method
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 95%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): <= 40 °C	TRA Workers 3.0

9.3.7.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 97. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.626 mg/m³ (TRA Workers 3.0)	RCR = 0.025
Inhalation, local, acute	12.51 mg/m³ (TRA Workers 3.0)	RCR = 0.5
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.3.8. Worker contributing scenario 7: contributing scenarios 14 and 108 (PROC 8b)

9.3.8.1. Conditions of use

contributing scenario 14 - Bulk transfers contributing scenario 108 - open systems

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 95%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.3.8.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 98. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.626 mg/m³ (TRA Workers 3.0)	RCR = 0.025
Inhalation, local, acute	12.51 mg/m³ (TRA Workers 3.0)	RCR = 0.5
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.3.9. Worker contributing scenario 8: contributing scenario 6 (PROC 9)

9.3.9.1. Conditions of use

contributing scenario 6 - Drum and small package filling

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.3.9.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 99. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1.251 mg/m ³ (TRA Workers 3.0)	RCR = 0.05
Inhalation, local, acute	5.004 mg/m ³ (TRA Workers 3.0)	RCR = 0.2
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.3.10. Worker contributing scenario 9: contributing scenario 67 (PROC 2)

9.3.10.1. Conditions of use

contributing scenario 67 - Storage

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 15 minutes	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour)	TRA Workers 3.0
• Containment: Closed continuous process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0

	Method
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.3.10.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table100. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.375 mg/m³ (TRA Workers 3.0)	RCR = 0.015
Inhalation, local, acute	15.01 mg/m³ (TRA Workers 3.0)	RCR = 0.6
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.3.11. Worker contributing scenario 10: contributing scenario 39 (PROC 8a)

9.3.11.1. Conditions of use

contributing scenario 39 - Equipment cleaning and maintenance

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	

	Method
• Duration of activity: < 4 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%] <i>LEV effectiveness assumed to equate to SOP relating to draining etc prior to maintenance. RPE (0.1x)</i>	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.3.11.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 1012. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.751 mg/m³ (TRA Workers 3.0)	RCR = 0.03
Inhalation, local, acute	5.004 mg/m³ (TRA Workers 3.0)	RCR = 0.2
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.3.12. Worker contributing scenario 11: contributing scenario 36 (PROC 15)

9.3.12.1. Conditions of use

contributing scenario 36 - Laboratory activities

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Good general ventilation (3-5 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.3.12.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 102. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.35 mg/m³ (TRA Workers 3.0)	RCR = 0.014
Inhalation, local, acute	7.006 mg/m³ (TRA Workers 3.0)	RCR = 0.28
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.4. Exposure scenario 4: Use at industrial site - Use as an intermediate

Environment contributing scenario(s):	
Use as an intermediate	ERC 6a
Worker contributing scenario(s):	
contributing scenario 15	PROC 1
contributing scenario 56	PROC 2
contributing scenario 37	PROC 3
contributing scenario 16	PROC 4
contributing scenario 39	PROC 8a
contributing scenario 2	PROC 8b
Worker contributing scenario 36	PROC 15
contributing scenario 67	PROC 2
contributing scenario 108	PROC 8b
contributing scenario 107	PROC 8b

9.4.1. Environmental contributing scenario 1: Use as an intermediate

9.4.1.1. Conditions of use

Amount used, frequency and duration of use (or from service life)
• Daily use at site: $\leq 1.746E3$ tonnes/day
• Annual use at a site: $\leq 6.371E5$ tonnes/year
• Percentage of EU tonnage used at regional scale: = 100 %
Conditions and measures related to sewage treatment plant
• Municipal STP: Yes [Effectiveness Water: 87.36%]
• Discharge rate of STP: $\geq 2E3$ m ³ /d
• Application of the STP sludge on agricultural soil: Yes
Conditions and measures related to treatment of waste (including article waste)
• Particular considerations on the waste treatment operations: No (low risk) (ERC based assessment demonstrating control of risk with default conditions. Low risk assumed for waste life stage. Waste

disposal according to national/local legislation is sufficient.)
Other conditions affecting environmental exposure
• Receiving surface water flow rate: $\geq 1.8E4$ m ³ /d

9.4.1.2. Releases

The local releases to the environment are reported in the following table.

Table 103. Local releases to the environment

Release	Release factor estimation method	Explanation / Justification
Water	Release factor (ESVOC SpERC 6.1a.v1)	Initial release factor: 0.001% Final release factor: 0.001% Local release rate: 17.46 kg/day Explanation / Justification: ESVOC SpERC 6.1a.v1 also know as ESVOC 2 SpERC
Air	Release factor (ESVOC SpERC 6.1a.v1)	Initial release factor: 0.2% Final release factor: 0.2% Local release rate: 3.491E3 kg/day Explanation / Justification: ESVOC SpERC 6.1a.v1 also known as ESVOC 2 SpERC
Soil	Release factor (ESVOC SpERC 6.1a.v1)	Final release factor: 0% Explanation / Justification: ESVOC SpERC 6.1a.v1 also know as ESVOC 2 SpERC

9.4.1.3. Exposure and risks for the environment and man via the environment

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 104. Exposure concentrations and risks for the environment

Protection target	Exposure concentration	Risk characterisation
Freshwater	Local PEC: 0.291 mg/L	RCR = 0.095
Sediment (freshwater)	Local PEC: 1.081 mg/kg dw	RCR = 0.095
Marine water	Local PEC: 0.028 mg/L	RCR = 0.091
Sediment (marine water)	Local PEC: 0.104 mg/kg dw	RCR = 0.091

Protection target	Exposure concentration	Risk characterisation
Predator (freshwater)		
Predator (marine water)		
Top predator (marine water)		
Sewage treatment plant	Local PEC: 1.103 mg/L	RCR = 0.013
Air		
Agricultural soil	Local PEC: 0.114 mg/kg dw	RCR = 0.243
Predator (terrestrial)		

Table 105. Contribution to oral intake for man via the environment from local contribution

Type of food	Estimated daily dose	Concentration in food
Drinking water	0.021 mg/kg bw/day	0.719 mg/L
Fish	0.002 mg/kg bw/day	0.919 mg/kg ww
Leaf crops	0.371 mg/kg bw/day	21.62 mg/kg ww
Root crops	0.004 mg/kg bw/day	0.674 mg/kg ww
Meat	5.533E-6 mg/kg bw/day	0.001 mg/kg ww
Milk	1.031E-4 mg/kg bw/day	0.013 mg/kg ww

9.4.2. Worker contributing scenario 1: contributing scenario 15 (PROC 1)

9.4.2.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Closed system (minimal contact during routine operations)	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0

	Method
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.4.2.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 106. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.025 mg/m³ (TRA Workers 3.0)	RCR < 0.01
Inhalation, local, acute	0.1 mg/m³ (TRA Workers 3.0)	RCR < 0.01
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.4.3. Worker contributing scenario 2: contributing scenario 56 (PROC 2)

9.4.3.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0

	Method
Technical and organisational conditions and measures	
• Containment: Closed continuous process with occasional controlled exposure	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Outdoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.4.3.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 107. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.175 mg/m³ (TRA Workers 3.0)	RCR < 0.01
Inhalation, local, acute	3.503 mg/m³ (TRA Workers 3.0)	RCR = 0.14
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.4.4. Worker contributing scenario 3: contributing scenario 37 (PROC 3)

9.4.4.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Closed batch process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.4.4.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 108. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.5 mg/m³ (TRA Workers 3.0)	RCR = 0.02
Inhalation, local, acute	10.01 mg/m³ (TRA Workers 3.0)	RCR = 0.4
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.4.5. Worker contributing scenario 4: contributing scenario 16 (PROC 4)

9.4.5.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.4.5.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 109. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1.001 mg/m³ (TRA Workers 3.0)	RCR = 0.04
Inhalation, local, acute	20.02 mg/m³ (TRA Workers 3.0)	RCR = 0.801
Dermal, local, long-term		Qualitative (see below)

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.4.6. Worker contributing scenario 5: contributing scenario 39 (PROC 8a)

9.4.6.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.4.6.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 110. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.751 mg/m ³ (TRA Workers 3.0)	RCR = 0.03
Inhalation, local, acute	15.01 mg/m ³ (TRA Workers 3.0)	RCR = 0.6
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.4.7. Worker contributing scenario 6: contributing scenario 2 (PROC 8b)

9.4.7.1. Conditions of use

Process sampling

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 15 minutes	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 95%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	

	Method
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.4.7.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 111. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.313 mg/m³ (TRA Workers 3.0)	RCR = 0.013
Inhalation, local, acute	12.51 mg/m³ (TRA Workers 3.0)	RCR = 0.5
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.4.8. Worker contributing scenario 7: Worker contributing scenario 36 (PROC 15)

9.4.8.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Good general ventilation (3-5 air changes per hour)	TRA Workers 3.0

	Method
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.4.8.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 112. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.35 mg/m³ (TRA Workers 3.0)	RCR = 0.014
Inhalation, local, acute	7.006 mg/m³ (TRA Workers 3.0)	RCR = 0.28
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.4.9. Worker contributing scenario 8: contributing scenario 67 (PROC 2)

9.4.9.1. Conditions of use

Storage

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour)	TRA Workers 3.0
• Containment: Closed continuous process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.4.9.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 113. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.375 mg/m ³ (TRA Workers 3.0)	RCR = 0.015
Inhalation, local, acute	1.501 mg/m ³ (TRA Workers 3.0)	RCR = 0.06

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.4.10. Worker contributing scenario 9: contributing scenario 108 (PROC 8b)

9.4.10.1. Conditions of use

Bulk transfers (open systems)

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 95%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.4.10.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 114. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.626 mg/m ³ (TRA Workers 3.0)	RCR = 0.025
Inhalation, local, acute	12.51 mg/m ³ (TRA Workers 3.0)	RCR = 0.5
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.4.11. Worker contributing scenario 10: contributing scenario 107 (PROC 8b)

9.4.11.1. Conditions of use

Bulk transfer (closed system)

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 95%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	

	Method
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.4.11.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 115. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.626 mg/m ³ (TRA Workers 3.0)	RCR = 0.025
Inhalation, local, acute	12.51 mg/m ³ (TRA Workers 3.0)	RCR = 0.5
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.5. Exposure scenario 5: Use at industrial site - Use at industrial site - Use in cleaning agents

Sector of use:

SU 10, Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

Environment contributing scenario(s):	
Use at industrial site - Use in cleaning agents	ERC 4
Worker contributing scenario(s):	
contributing scenarios 93, 38 and 101	PROC 2
contributing scenarios 93, 38 and 8	PROC 3
contributing scenario 37 and occupational scenario 129	PROC 4
contributing scenario 44	PROC 7
contributing scenario 14	PROC 8a
contributing scenarios 45 and 81	PROC 8b
contributing scenarios 42 and 34	PROC 10
contributing scenario 41	PROC 13
contributing scenario 39	PROC 8a
contributing scenarios 67 and 137	PROC 2

9.5.1. Environmental contributing scenario 1: Use at industrial site - Use in cleaning agents

9.5.1.1. Conditions of use

Amount used, frequency and duration of use (or from service life)
<ul style="list-style-type: none"> Daily use at site: ≤ 5 tonnes/day <i>SpERC ESVOC 4.4a.v1</i>
<ul style="list-style-type: none"> Annual use at a site: ≤ 100 tonnes/year <i>SpERC ESVOC 4.4a.v1</i>
<ul style="list-style-type: none"> Percentage of EU tonnage used at regional scale: = 66 %
Conditions and measures related to sewage treatment plant
<ul style="list-style-type: none"> Municipal STP: Yes [Effectiveness Water: 87.36%]

• Discharge rate of STP: $\geq 2E3$ m ³ /d
• Application of the STP sludge on agricultural soil: No
Conditions and measures related to treatment of waste (including article waste)
• Particular considerations on the waste treatment operations: No (low risk) (ERC based assessment demonstrating control of risk with default conditions. Low risk assumed for waste life stage. Waste disposal according to national/local legislation is sufficient.)
Other conditions affecting environmental exposure
• Receiving surface water flow rate: $\geq 1.8E4$ m ³ /d

9.5.1.2. Releases

The local releases to the environment are reported in the following table.

Table 116. Local releases to the environment

Release	Release factor estimation method	Explanation / Justification
Water	Release factor (ESVOC SpERC 4.4a.v1)	Initial release factor: 0.01% Final release factor: 0.01% Local release rate: 0.5 kg/day Explanation / Justification: ESVOC SpERC 4.4a.v1 also known as ESVOC 8 SpERC
Air	Release factor (ESVOC SpERC 4.4a.v1)	Initial release factor: 30% Final release factor: 30% Local release rate: 1.5E3 kg/day Explanation / Justification: ESVOC SpERC 4.4a.v1 also known as ESVOC 8 SpERC
Soil	Release factor (ESVOC SpERC 4.4a.v1)	Final release factor: 0% Explanation / Justification: ESVOC SpERC 4.4a.v1 also known as ESVOC 8 SpERC

9.5.1.3. Exposure and risks for the environment and man via the environment

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 117. Exposure concentrations and risks for the environment

Protection target	Exposure concentration	Risk characterisation
Freshwater	Local PEC: 0.184 mg/L	RCR = 0.06
Sediment (freshwater)	Local PEC: 0.683 mg/kg dw	RCR = 0.06
Marine water	Local PEC: 0.017 mg/L	RCR = 0.056
Sediment (marine water)	Local PEC: 0.064 mg/kg dw	RCR = 0.056
Predator (freshwater)		
Predator (marine water)		
Top predator (marine water)		
Sewage treatment plant	Local PEC: 0.032 mg/L	RCR < 0.01
Air		
Agricultural soil	Local PEC: 0.01 mg/kg dw	RCR = 0.022
Predator (terrestrial)		

Table 118. Contribution to oral intake for man via the environment from local contribution

Type of food	Estimated daily dose	Concentration in food
Drinking water	0.005 mg/kg bw/day	0.181 mg/L
Fish	9.386E-4 mg/kg bw/day	0.571 mg/kg ww
Leaf crops	0.009 mg/kg bw/day	0.542 mg/kg ww
Root crops	3.346E-4 mg/kg bw/day	0.061 mg/kg ww
Meat	1.693E-7 mg/kg bw/day	3.937E-5 mg/kg ww
Milk	3.155E-6 mg/kg bw/day	3.937E-4 mg/kg ww

9.5.2. Worker contributing scenario 1: contributing scenarios 93, 38 and 101 (PROC 2)

9.5.2.1. Conditions of use

contributing scenario 93: Automated process with (semi) closed systems contributing scenario 38: Use in contained systems contributing scenario 101: Application of cleaning products in closed systems

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) <i>Provide a good standard of general ventilation (not less than 5 to 10 air changes per hour).</i>	TRA Workers 3.0
• Containment: Closed continuous process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

9.5.2.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 119. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	3.753 mg/m³ (TRA Workers 3.0)	RCR = 0.15
Inhalation, local, acute	15.01 mg/m³ (TRA Workers 3.0)	RCR = 0.6
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.5.3. Worker contributing scenario 2: contributing scenarios 93, 38 and 8 (PROC 3)

9.5.3.1. Conditions of use

contributing scenarios 93: Automated process with (semi) closed systems contributing scenarios 38: Use in contained systems contributing scenarios 8: Drum/batch transfers

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Good general ventilation (3-5 air changes per hour)	TRA Workers 3.0
• Containment: Closed batch process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Local exhaust ventilation (for dermal): no [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: One hand face only (240 cm ²)	TRA Workers 3.0

9.5.3.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 120. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.35 mg/m ³ (TRA Workers 3.0)	RCR = 0.014
Inhalation, local, acute	7.006 mg/m ³ (TRA Workers 3.0)	RCR = 0.28
Dermal, local, long-term	0.04 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.5.4. Worker contributing scenario 3: contributing scenario 37 and occupational scenario 129 (PROC 4)

9.5.4.1. Conditions of use

contributing scenario 37: Use in contained batch processes occupational scenario 129: Treatment by heating

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 4 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Local exhaust ventilation (for dermal): no [Effectiveness Dermal: 0%]	TRA Workers 3.0

	Method
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374) [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands face (480 cm ²)	TRA Workers 3.0

9.5.4.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 121. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	3.003 mg/m ³ (TRA Workers 3.0)	RCR = 0.12
Inhalation, local, acute	20.02 mg/m ³ (TRA Workers 3.0)	RCR = 0.801
Dermal, local, long-term	0.12 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.5.5. Worker contributing scenario 4: contributing scenario 44 (PROC 7)

9.5.5.1. Conditions of use

contributing scenario: Cleaning with high pressure washers

	Method
Product (article) characteristics	
• Concentration of substance in mixture: 1-5%	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Good general ventilation (3-5 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374) [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 20) [Effectiveness Inhal: 95%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands and upper wrists (1500 cm ²)	TRA Workers 3.0

9.5.5.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 122. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.876 mg/m³ (TRA Workers 3.0)	RCR = 0.035
Inhalation, local, acute	17.52 mg/m³ (TRA Workers 3.0)	RCR = 0.701
Dermal, local, long-term	0.016 mg/cm² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.5.6. Worker contributing scenario 5: contributing scenario 14 (PROC 8a)

9.5.6.1. Conditions of use

contributing scenario 14 - bulk transfers

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Local exhaust ventilation (for dermal): no [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374) [Effectiveness Dermal: 80%]	TRA Workers 3.0

	Method
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): <= 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands (960 cm ²)	TRA Workers 3.0

9.5.6.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 123. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.25 mg/m ³ (TRA Workers 3.0)	RCR = 0.01
Inhalation, local, acute	5.004 mg/m ³ (TRA Workers 3.0)	RCR = 0.2
Dermal, local, long-term	0.04 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.5.7. Worker contributing scenario 6: contributing scenarios 45 and 81 (PROC 8b)

9.5.7.1. Conditions of use

contributing scenario 45: Filling / preparation of equipment from drums or containers. contributing scenario 81: Dedicated facility

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0

	Method
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 95%]	TRA Workers 3.0
• Local exhaust ventilation (for dermal): no [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374) [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands (960 cm ²)	TRA Workers 3.0

9.5.7.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 124. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.626 mg/m ³ (TRA Workers 3.0)	RCR = 0.025
Inhalation, local, acute	12.51 mg/m ³ (TRA Workers 3.0)	RCR = 0.5
Dermal, local, long-term	0.04 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.5.8. Worker contributing scenario 7: contributing scenarios 42 and 34 (PROC 10)

9.5.8.1. Conditions of use

contributing scenario 42: Cleaning with low-pressure washers contributing scenario 34: Manual

	Method
Product (article) characteristics	
• Concentration of substance in mixture: 1-5%	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Good general ventilation (3-5 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Local exhaust ventilation (for dermal): no [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands (960 cm ²)	TRA Workers 3.0

9.5.8.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 125. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.35 mg/m³ (TRA Workers 3.0)	RCR = 0.014
Inhalation, local, acute	7.006 mg/m³ (TRA Workers 3.0)	RCR = 0.28
Dermal, local, long-term	0.08 mg/cm² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.5.9. Worker contributing scenario 8: contributing scenario 41 (PROC 13)

9.5.9.1. Conditions of use

contributing scenario 41: Degreasing small objects in cleaning station

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Local exhaust ventilation (for dermal): no [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374) [Effectiveness Dermal: 80%]	TRA Workers 3.0

	Method
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): <= 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands face (480 cm ²)	TRA Workers 3.0

9.5.9.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 126. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1.251 mg/m ³ (TRA Workers 3.0)	RCR = 0.05
Inhalation, local, acute	5.004 mg/m ³ (TRA Workers 3.0)	RCR = 0.2
Dermal, local, long-term	0.4 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.5.10. Worker contributing scenario 9: contributing scenario 39 (PROC 8a)

9.5.10.1. Conditions of use

contributing scenario 39: Equipment cleaning and maintenance

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	

	Method
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Good general ventilation (3-5 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%] <i>LEV effectiveness assumed to equate to SOP relating to draining etc prior to maintenance; additional LEV</i>	TRA Workers 3.0
• Local exhaust ventilation (for dermal): no [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374) [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands (960 cm ²)	TRA Workers 3.0

9.5.10.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 127. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.175 mg/m ³ (TRA Workers 3.0)	RCR < 0.01
Inhalation, local, acute	3.503 mg/m ³ (TRA Workers 3.0)	RCR = 0.14
Dermal, local, long-term	0.04 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.5.11. Worker contributing scenario 10: contributing scenarios 67 and 137 (PROC 2)

9.5.11.1. Conditions of use

contributing scenario 67: storage contributing scenario 137: With occasional controlled exposure

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 15 minutes	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Good general ventilation (3-5 air changes per hour)	TRA Workers 3.0
• Containment: Closed continuous process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

	Method
• Skin surface potentially exposed: Two hands face (480 cm ²)	TRA Workers 3.0

9.5.11.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 128. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.088 mg/m ³ (TRA Workers 3.0)	RCR < 0.01
Inhalation, local, acute	3.503 mg/m ³ (TRA Workers 3.0)	RCR = 0.14
Dermal, local, long-term	0.02 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.6. Exposure scenario 6: Use at industrial site - Use at industrial site - Use in laboratories

Sector of use:

SU 10, Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

Environment contributing scenario(s):	
Use at industrial site - Use in laboratories	ERC 4
Worker contributing scenario(s):	
Worker contributing scenario 36	PROC 15
contributing scenario 47	PROC 10

9.6.1. Environmental contributing scenario 1: Use at industrial site - Use in laboratories

9.6.1.1. Conditions of use

Amount used, frequency and duration of use (or from service life)
• Daily use at site: ≤ 0.1 tonnes/day
• Annual use at a site: ≤ 2 tonnes/year
• Percentage of EU tonnage used at regional scale: = 100 %
Conditions and measures related to sewage treatment plant
• Municipal STP: Yes [Effectiveness Water: 87.36%]
• Discharge rate of STP: $\geq 2E3$ m ³ /d
• Application of the STP sludge on agricultural soil: Yes
Conditions and measures related to treatment of waste (including article waste)
• Particular considerations on the waste treatment operations: No (low risk) (ERC based assessment demonstrating control of risk with default conditions. Low risk assumed for waste life stage. Waste disposal according to national/local legislation is sufficient.)
Other conditions affecting environmental exposure
• Receiving surface water flow rate: $\geq 1.8E4$ m ³ /d

9.6.1.2. Releases

The local releases to the environment are reported in the following table.

Table 129. Local releases to the environment

Release	Release factor estimation method	Explanation / Justification
Water	Release factor	Initial release factor: 2% Final release factor: 2% Local release rate: 2 kg/day
Air	Release factor	Initial release factor: 2.5% Final release factor: 2.5% Local release rate: 2.5 kg/day
Soil	Release factor	Final release factor: 0%

9.6.1.3. Exposure and risks for the environment and man via the environment

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 130. Exposure concentrations and risks for the environment

Protection target	Exposure concentration	Risk characterisation
Freshwater	Local PEC: 0.193 mg/L	RCR = 0.063
Sediment (freshwater)	Local PEC: 0.718 mg/kg dw	RCR = 0.063
Marine water	Local PEC: 0.018 mg/L	RCR = 0.059
Sediment (marine water)	Local PEC: 0.068 mg/kg dw	RCR = 0.059
Predator (freshwater)		
Predator (marine water)		
Top predator (marine water)		
Sewage treatment plant	Local PEC: 0.126 mg/L	RCR < 0.01
Air		
Agricultural soil	Local PEC: 0.008 mg/kg dw	RCR = 0.017
Predator (terrestrial)		

Table 131. Contribution to oral intake for man via the environment from local contribution

Type of food	Estimated daily dose	Concentration in food
Drinking water	0.005 mg/kg bw/day	0.181 mg/L
Fish	9.413E-4 mg/kg bw/day	0.573 mg/kg ww
Leaf crops	5.934E-4 mg/kg bw/day	0.035 mg/kg ww
Root crops	2.559E-4 mg/kg bw/day	0.047 mg/kg ww
Meat	4.271E-8 mg/kg bw/day	9.931E-6 mg/kg ww
Milk	7.959E-7 mg/kg bw/day	9.931E-5 mg/kg ww

9.6.2. Worker contributing scenario 1: Worker contributing scenario 36 (PROC 15)

9.6.2.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Good general ventilation (3-5 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Local exhaust ventilation (for dermal): no [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374 with basic employee training) [Effectiveness Dermal: 90%]	TRA Workers 3.0
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

	Method
• Skin surface potentially exposed: One hand face only (240 cm ²)	TRA Workers 3.0

9.6.2.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 132. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.35 mg/m ³ (TRA Workers 3.0)	RCR = 0.014
Inhalation, local, acute	7.006 mg/m ³ (TRA Workers 3.0)	RCR = 0.28
Dermal, local, long-term	0.002 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.6.3. Worker contributing scenario 2: contributing scenario 47 (PROC 10)

9.6.3.1. Conditions of use

contributing scenario 47: Cleaning

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0

	Method
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Local exhaust ventilation (for dermal): no [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374) [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands (960 cm ²)	TRA Workers 3.0

9.6.3.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 133. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.751 mg/m³ (TRA Workers 3.0)	RCR = 0.03
Inhalation, local, acute	15.01 mg/m³ (TRA Workers 3.0)	RCR = 0.6
Dermal, local, long-term	0.08 mg/cm² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.7. Exposure scenario 7: Use at industrial site - Use at industrial site - Use in water treatments

Environment contributing scenario(s):	
Use at industrial site - Use in water treatments	ERC 4
Worker contributing scenario(s):	
contributing scenario 67	PROC 1
contributing scenarios 14 and 137	PROC 2
contributing scenarios 15 and 55	PROC 3
contributing scenario 5	PROC 8a
contributing scenarios 8 and 81	PROC 8b
contributing scenario 16	PROC 4
contributing scenarios 9 and 35	PROC 13

9.7.1. Environmental contributing scenario 1: Use at industrial site - Use in water treatments

9.7.1.1. Conditions of use

Amount used, frequency and duration of use (or from service life)
• Daily use at site: ≤ 0.1 tonnes/day
• Annual use at a site: ≤ 30 tonnes/year
• Percentage of EU tonnage used at regional scale: = 100 %
Conditions and measures related to sewage treatment plant
• Municipal STP: Yes [Effectiveness Water: 87.36%]
• Discharge rate of STP: $\geq 2 \times 10^3$ m ³ /d
• Application of the STP sludge on agricultural soil: Yes
Conditions and measures related to treatment of waste (including article waste)
• Particular considerations on the waste treatment operations: No (low risk) (ERC based assessment demonstrating control of risk with default conditions. Low risk assumed for waste life stage. Waste disposal according to national/local legislation is sufficient.)
Other conditions affecting environmental exposure

• Receiving surface water flow rate: $\geq 1.8E4$ m³/d

9.7.1.2. Releases

The local releases to the environment are reported in the following table.

Table 134. Local releases to the environment

Release	Release factor estimation method	Explanation / Justification
Water	Release factor (ESVOC SpERC 3.22a.v1)	Initial release factor: 95% Final release factor: 95% Local release rate: 95 kg/day Explanation / Justification: ESVOC SpERC 3.22a.v1 also known as ESVOC 46
Air	Release factor (ESVOC SpERC 3.22a.v1)	Initial release factor: 5% Final release factor: 5% Local release rate: 5 kg/day Explanation / Justification: ESVOC SpERC 3.22a.v1 also known as ESVOC 46
Soil	Release factor (ESVOC SpERC 3.22a.v1)	Final release factor: 0% Explanation / Justification: ESVOC SpERC 3.22a.v1 also known as ESVOC 46

9.7.1.3. Exposure and risks for the environment and man via the environment

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 135. Exposure concentrations and risks for the environment

Protection target	Exposure concentration	Risk characterisation
Freshwater	Local PEC: 0.781 mg/L	RCR = 0.255
Sediment (freshwater)	Local PEC: 2.902 mg/kg dw	RCR = 0.256
Marine water	Local PEC: 0.077 mg/L	RCR = 0.252
Sediment (marine water)	Local PEC: 0.286 mg/kg dw	RCR = 0.252
Predator (freshwater)		
Predator (marine water)		

Protection target	Exposure concentration	Risk characterisation
Top predator (marine water)		
Sewage treatment plant	Local PEC: 6.005 mg/L	RCR = 0.071
Air		
Agricultural soil	Local PEC: 0.02 mg/kg dw	RCR = 0.042
Predator (terrestrial)		

Table 136. Contribution to oral intake for man via the environment from local contribution

Type of food	Estimated daily dose	Concentration in food
Drinking water	0.019 mg/kg bw/day	0.674 mg/L
Fish	0.003 mg/kg bw/day	2.13 mg/kg ww
Leaf crops	0.001 mg/kg bw/day	0.059 mg/kg ww
Root crops	3.472E-4 mg/kg bw/day	0.063 mg/kg ww
Meat	1.414E-7 mg/kg bw/day	3.289E-5 mg/kg ww
Milk	2.636E-6 mg/kg bw/day	3.289E-4 mg/kg ww

9.7.2. Worker contributing scenario 1: contributing scenario 67 (PROC 1)

9.7.2.1. Conditions of use

contributing scenario 67: Storage

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Good general ventilation (3-5 air changes per hour)	TRA Workers 3.0
• Containment: Closed system (minimal contact during routine operations)	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0

	Method
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374 with basic employee training) [Effectiveness Dermal: 90%]	TRA Workers 3.0
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: One hand face only (240 cm ²)	TRA Workers 3.0

9.7.2.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 137. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.018 mg/m ³ (TRA Workers 3.0)	RCR < 0.01
Inhalation, local, acute	0.07 mg/m ³ (TRA Workers 3.0)	RCR < 0.01
Dermal, local, long-term	9.917E-4 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.7.3. Worker contributing scenario 2: contributing scenarios 14 and 137 (PROC 2)

9.7.3.1. Conditions of use

contributing scenario 14: Bulk transfers contributing scenario 137: with occasional controlled exposure

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Closed continuous process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): <= 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands face (480 cm ²)	TRA Workers 3.0

9.7.3.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 138. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1.251 mg/m ³ (TRA Workers 3.0)	RCR = 0.05
Inhalation, local, acute	5.004 mg/m ³ (TRA Workers 3.0)	RCR = 0.2
Dermal, local, long-term	0.2 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.7.4. Worker contributing scenario 3: contributing scenarios 15 and 55 (PROC 3)

9.7.4.1. Conditions of use

contributing scenario 15: General exposures (closed systems) contributing scenario 55: Batch process

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Good general ventilation (3-5 air changes per hour)	TRA Workers 3.0
• Containment: Closed batch process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: One hand face only (240 cm ²)	TRA Workers 3.0

9.7.4.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 140. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.35 mg/m³ (TRA Workers 3.0)	RCR = 0.014
Inhalation, local, acute	7.006 mg/m³ (TRA Workers 3.0)	RCR = 0.28
Dermal, local, long-term	0.04 mg/cm² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.7.5. Worker contributing scenario 4: contributing scenario 5 (PROC 8a)

9.7.5.1. Conditions of use

contributing scenario 5: Equipment maintenance

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%] <i>LEV effectiveness of 80% assumed to equate to SOP relating to draining etc prior to maintenance (x0.2)</i>	TRA Workers 3.0

	Method
• Local exhaust ventilation (for dermal): no [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands (960 cm ²)	TRA Workers 3.0

9.7.5.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 141. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.751 mg/m ³ (TRA Workers 3.0)	RCR = 0.03
Inhalation, local, acute	15.01 mg/m ³ (TRA Workers 3.0)	RCR = 0.6
Dermal, local, long-term	0.2 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.7.6. Worker contributing scenario 5: contributing scenarios 8 and 81 (PROC 8b)

9.7.6.1. Conditions of use

contributing scenario 8: Drum/batch transfers contributing scenario 81: Dedicated facilities

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) <i>Use of drum pumps considered to offer 80% exposure reduction (0.2)</i>	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%] <i>Use of drum pumps considered to offer 80% exposure reduction (0.2)</i>	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374) [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands (960 cm ²)	TRA Workers 3.0

9.7.6.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 142. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.375 mg/m ³ (TRA Workers 3.0)	RCR = 0.015

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, acute	7.506 mg/m³ (TRA Workers 3.0)	RCR = 0.3
Dermal, local, long-term	0.04 mg/cm² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.7.7. Worker contributing scenario 6: contributing scenario 16 (PROC 4)

9.7.7.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 4 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Local exhaust ventilation (for dermal): no [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374) [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0

	Method
• Process temperature (for liquid): $\leq 40\text{ }^{\circ}\text{C}$	TRA Workers 3.0
• Skin surface potentially exposed: Two hands face (480 cm ²)	TRA Workers 3.0

9.7.7.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 143. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	3.003 mg/m³ (TRA Workers 3.0)	RCR = 0.12
Inhalation, local, acute	20.02 mg/m³ (TRA Workers 3.0)	RCR = 0.801
Dermal, local, long-term	0.12 mg/cm² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.7.8. Worker contributing scenario 7: contributing scenarios 9 and 35 (PROC 13)

9.7.8.1. Conditions of use

contributing scenario 9: Pouring from small containers contributing scenario 35: Treatment by dipping and pouring

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Good general ventilation (3-5 air changes per hour)	TRA Workers 3.0

	Method
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Local exhaust ventilation (for dermal): no [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374) [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands face (480 cm ²)	TRA Workers 3.0

9.7.8.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 144. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.175 mg/m ³ (TRA Workers 3.0)	RCR < 0.01
Inhalation, local, acute	3.503 mg/m ³ (TRA Workers 3.0)	RCR = 0.14
Dermal, local, long-term	0.08 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.8. Exposure scenario 8: Use at industrial site - Use at industrial site - Hydraulic fracturing in oil and gas operations

Sector of use:

SU 2a, Mining, (without offshore industries) (Extraction of crude petroleum and natural gas)

SU 2b, Offshore industries (Extraction of crude petroleum and natural gas)

Environment contributing scenario(s):	
Use at industrial site [edit]	ERC 4
Worker contributing scenario(s):	
Worker contributing scenario [edit]	PROC 1
Worker contributing scenario [edit]	PROC 2
Worker contributing scenario [edit]	PROC 3
Worker contributing scenario [edit]	PROC 4
Worker contributing scenario [edit]	PROC 8a
Worker contributing scenario [edit]	PROC 8b

Description of the activities and technical processes covered in the exposure scenario:

Exploration and Production of Hydrocarbons Using High-Volume Hydraulic Fracturing - Final draft SpERC

9.8.1. Environmental contributing scenario 1: Use at industrial site [edit]

9.8.1.1. Conditions of use

Amount used, frequency and duration of use (or from service life)
<ul style="list-style-type: none"> Daily use at site: <= 22.2 tonnes/day <i>Exploration and Production of Hydrocarbons Using High-Volume Hydraulic Fracturing final draft SpERC</i>
<ul style="list-style-type: none"> Annual use at a site: <= 89 tonnes/year <i>Exploration and Production of Hydrocarbons Using High-Volume Hydraulic Fracturing final draft SpERC</i>
<ul style="list-style-type: none"> Percentage of EU tonnage used at regional scale: = 100 %
Conditions and measures related to sewage treatment plant

• Municipal STP: Yes [Effectiveness Water: 100%]
• Discharge rate of STP: $\geq 2E3$ m ³ /d
• Application of the STP sludge on agricultural soil: Yes
Conditions and measures related to treatment of waste (including article waste)
• Particular considerations on the waste treatment operations: No (low risk) (ERC based assessment demonstrating control of risk with default conditions. Low risk assumed for waste life stage. Waste disposal according to national/local legislation is sufficient.)
Other conditions affecting environmental exposure
• Receiving surface water flow rate: $\geq 1.8E4$ m ³ /d

9.8.1.2. Releases

The local releases to the environment are reported in the following table.

Table 145. Local releases to the environment

Release	Release factor estimation method	Explanation / Justification
Water	Release factor (Exploration and Production of Hydrocarbons Using High-Volume Hydraulic Fracturing Final Draft SpERC)	Initial release factor: 0% Final release factor: 0% Local release rate: 0 kg/day Explanation / Justification: Exploration and Production of Hydrocarbons Using High-Volume Hydraulic Fracturing - Final Draft SpERC
Air	Release factor (Exploration and Production of Hydrocarbons Using High-Volume Hydraulic Fracturing - Final Draft SpERC)	Initial release factor: 1.025% Final release factor: 1.025% Local release rate: 227.5 kg/day Explanation / Justification: Exploration and Production of Hydrocarbons Using High-Volume Hydraulic Fracturing - Final Draft SpERC
Soil	Release factor (Exploration and Production of Hydrocarbons Using High-Volume Hydraulic Fracturing	Final release factor: 0% Explanation / Justification: Exploration and Production of Hydrocarbons Using High-Volume Hydraulic Fracturing - Final Draft SpERC

Release	Release factor estimation method	Explanation / Justification
	- Final Draft SpERC)	

9.8.1.3. Exposure and risks for the environment and man via the environment

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 146. Exposure concentrations and risks for the environment

Protection target	Exposure concentration	Risk characterisation
Freshwater	Local PEC: 0.181 mg/L	RCR = 0.059
Sediment (freshwater)	Local PEC: 0.671 mg/kg dw	RCR = 0.059
Marine water	Local PEC: 0.017 mg/L	RCR = 0.055
Sediment (marine water)	Local PEC: 0.063 mg/kg dw	RCR = 0.055
Predator (freshwater)		
Predator (marine water)		
Top predator (marine water)		
Sewage treatment plant	Local PEC: 0 mg/L	RCR < 0.01
Air		
Agricultural soil	Local PEC: 0.008 mg/kg dw	RCR = 0.017
Predator (terrestrial)		

Table 147. Contribution to oral intake for man via the environment from local contribution

Type of food	Estimated daily dose	Concentration in food
Drinking water	0.005 mg/kg bw/day	0.181 mg/L
Fish	9.377E-4 mg/kg bw/day	0.571 mg/kg ww
Leaf crops	8.437E-4 mg/kg bw/day	0.049 mg/kg ww
Root crops	2.563E-4 mg/kg bw/day	0.047 mg/kg ww
Meat	4.622E-8 mg/kg bw/day	1.075E-5 mg/kg ww
Milk	8.615E-7 mg/kg bw/day	1.075E-4 mg/kg ww

9.8.2. Worker contributing scenario 1: Worker contributing scenario [edit] (PROC 1)

9.8.2.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Closed system (minimal contact during routine operations)	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: One hand face only (240 cm ²)	TRA Workers 3.0

9.8.2.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 148. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.025 mg/m ³ (TRA Workers 3.0)	RCR < 0.01
Inhalation, local, acute	0.1 mg/m ³ (TRA Workers 3.0)	RCR < 0.01
Dermal, local, long-term	0.01 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.8.3. Worker contributing scenario 2: Worker contributing scenario [edit] (PROC 2)

9.8.3.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Closed continuous process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands face (480 cm ²)	TRA Workers 3.0

9.8.3.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 149. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1.251 mg/m ³ (TRA Workers 3.0)	RCR = 0.05
Inhalation, local, acute	5.004 mg/m ³ (TRA Workers 3.0)	RCR = 0.2
Dermal, local, long-term	0.2 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.8.4. Worker contributing scenario 3: Worker contributing scenario [edit] (PROC 3)

9.8.4.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Closed batch process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness	TRA Workers 3.0

	Method
Inhal: 90%]	
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): <= 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: One hand face only (240 cm2)	TRA Workers 3.0

9.8.4.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 150. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	2.502 mg/m³ (TRA Workers 3.0)	RCR = 0.1
Inhalation, local, acute	10.01 mg/m³ (TRA Workers 3.0)	RCR = 0.4
Dermal, local, long-term	0.201 mg/cm² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.8.5. Worker contributing scenario 4: Worker contributing scenario [edit] (PROC 4)

9.8.5.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	

	Method
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Outdoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands face (480 cm ²)	TRA Workers 3.0

9.8.5.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 151. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	3.503 mg/m ³ (TRA Workers 3.0)	RCR = 0.14
Inhalation, local, acute	14.01 mg/m ³ (TRA Workers 3.0)	RCR = 0.56
Dermal, local, long-term	1 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.8.6. Worker contributing scenario 5: Worker contributing scenario [edit] (PROC 8a)

9.8.6.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• Containment: No	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 20) [Effectiveness Inhal: 95%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Outdoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands (960 cm ²)	TRA Workers 3.0

9.8.6.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 152. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	4.379 mg/m³ (TRA Workers 3.0)	RCR = 0.175
Inhalation, local, acute	17.52 mg/m³ (TRA Workers 3.0)	RCR = 0.701
Dermal, local, long-term	1 mg/cm² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.8.7. Worker contributing scenario 6: Worker contributing scenario [edit] (PROC 8b)

9.8.7.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Outdoor	TRA Workers 3.0
• Process temperature (for liquid): <= 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands (960 cm ²)	TRA Workers 3.0

9.8.7.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 153. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	4.379 mg/m ³ (TRA Workers 3.0)	RCR = 0.175
Inhalation, local, acute	17.52 mg/m ³ (TRA Workers 3.0)	RCR = 0.701
Dermal, local, long-term	1 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.9. Exposure scenario 9: Use by professional worker - Use by professional worker - Use as cleaning agent

Environment contributing scenario(s):	
Use by professional worker - Use as cleaning agent	ERC 8d
Worker contributing scenario(s):	
Worker contributing scenario [edit]	PROC 1
contributing scenarios 93 and 38	PROC 2
contributing scenario 93, 38 and 8	PROC 3
contributing scenario 76	PROC 4
contributing scenario 45	PROC 8a
contributing scenarios 45 and 81	PROC 8b
contributing scenarios 42, 51 and 60	PROC 10
contributing scenarios 44 and 10	PROC 11
contributing scenario 34, 47, 48 and 4	PROC 13
contributing scenarios 34, 48, 47 and 10	PROC 10
contributing scenarios 27 and 51	PROC 10
contributing scenario 101	PROC 4
contributing scenario 74	PROC 4
contributing scenario 39	PROC 8a
contributing scenarios 67 and 137	PROC 2

9.9.1. Environmental contributing scenario 1: Use by professional worker - Use as cleaning agent

9.9.1.1. Conditions of use

Amount used, frequency and duration of use (or from service life)
<ul style="list-style-type: none"> Daily wide dispersive use: ≤ 0.002 tonnes/day <p><i>Calculated using ESVOC SpERC 8.4b.v1 also known as ESVOC 9 SpERC calculation -</i> <i>$8.141465753 \cdot 0.1 \cdot 0.0005$</i></p>

• Percentage of EU tonnage used at regional scale: = 10 %
Conditions and measures related to sewage treatment plant
• Municipal STP: Yes [Effectiveness Water: 87.36%]
• Discharge rate of STP: $\geq 2 \text{E}3 \text{ m}^3/\text{d}$
• Application of the STP sludge on agricultural soil: Yes
Conditions and measures related to treatment of waste (including article waste)
• Particular considerations on the waste treatment operations: No (low risk) (ERC based assessment demonstrating control of risk with default conditions. Low risk assumed for waste life stage. Waste disposal according to national/local legislation is sufficient.)
Other conditions affecting environmental exposure
• Receiving surface water flow rate: $\geq 1.8 \text{E}4 \text{ m}^3/\text{d}$

9.9.1.2. Releases

The local releases to the environment are reported in the following table.

Table 154. Local releases to the environment

Release	Release factor estimation method	Explanation / Justification
Water	Release factor (ESVOC SpERC 8.4b.v1)	Initial release factor: $1 \text{E}-4\%$ Final release factor: $1 \text{E}-4\%$ Local release rate: $1.65 \text{E}-6 \text{ kg/day}$ Explanation / Justification: ESVOC SpERC 8.4b.v1 also known as ESVOC 9 SpERC
Air	Release factor (ESVOC SpERC 8.4b.v1)	Initial release factor: 2% Final release factor: 2% Explanation / Justification: ESVOC SpERC 8.4b.v1 also known as ESVOC 9 SpERC
Soil	Release factor (ESVOC SpERC 8.4b.v1)	Final release factor: 0% Explanation / Justification: ESVOC SpERC 8.4b.v1 also known as ESVOC 9 SpERC

9.9.1.3. Exposure and risks for the environment and man via the environment

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table155. Exposure concentrations and risks for the environment

Protection target	Exposure concentration	Risk characterisation
Freshwater	Local PEC: 0.181 mg/L	RCR = 0.059
Sediment (freshwater)	Local PEC: 0.671 mg/kg dw	RCR = 0.059
Marine water	Local PEC: 0.017 mg/L	RCR = 0.055
Sediment (marine water)	Local PEC: 0.063 mg/kg dw	RCR = 0.055
Predator (freshwater)		
Predator (marine water)		
Top predator (marine water)		
Sewage treatment plant	Local PEC: 1.043E-7 mg/L	RCR < 0.01
Air		
Agricultural soil	Local PEC: 0.008 mg/kg dw	RCR = 0.016
Predator (terrestrial)		

Table 156. Contribution to oral intake for man via the environment from local contribution

Type of food	Estimated daily dose	Concentration in food
Drinking water	0.005 mg/kg bw/day	0.181 mg/L
Fish	9.377E-4 mg/kg bw/day	0.571 mg/kg ww
Leaf crops	5.788E-4 mg/kg bw/day	0.034 mg/kg ww
Root crops	2.538E-4 mg/kg bw/day	0.046 mg/kg ww
Meat	4.236E-8 mg/kg bw/day	9.852E-6 mg/kg ww
Milk	7.896E-7 mg/kg bw/day	9.852E-5 mg/kg ww

9.9.2. Worker contributing scenario 1: Worker contributing scenario [edit] (PROC 1)

9.9.2.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Closed system (minimal contact during routine operations)	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: One hand face only (240 cm ²)	TRA Workers 3.0

9.9.2.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table157. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.025 mg/m ³ (TRA Workers 3.0)	RCR < 0.01
Inhalation, local, acute	0.1 mg/m ³ (TRA Workers 3.0)	RCR < 0.01
Dermal, local, long-term	0.01 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.9.3. Worker contributing scenario 2: contributing scenarios 93 and 38 (PROC 2)

9.9.3.1. Conditions of use

contributing scenario 93: Automated process with (semi) closed systems contributing scenario 38: Use in contained systems

	Method
Product (article) characteristics	
• Concentration of substance in mixture: 5-25%	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Good general ventilation (3-5 air changes per hour)	TRA Workers 3.0
• Containment: Closed continuous process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374) [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0

	Method
• Process temperature (for liquid): $\leq 40\text{ }^{\circ}\text{C}$	TRA Workers 3.0
• Skin surface potentially exposed: Two hands face (480 cm ²)	TRA Workers 3.0

9.9.3.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table158. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	2.102 mg/m ³ (TRA Workers 3.0)	RCR = 0.084
Inhalation, local, acute	8.407 mg/m ³ (TRA Workers 3.0)	RCR = 0.336
Dermal, local, long-term	0.024 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.9.4. Worker contributing scenario 3: contributing scenario 93, 38 and 8 (PROC 3)

9.9.4.1. Conditions of use

contributing scenario 93: Automated process with (semi) closed systems contributing scenario 38: Use in contained systems contributing scenario 8: Drum/batch transfers

	Method
Product (article) characteristics	
• Concentration of substance in mixture: 5-25%	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 4 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0

	Method
• Containment: Closed batch process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374) [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: One hand face only (240 cm ²)	TRA Workers 3.0

9.9.4.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 159. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	2.252 mg/m ³ (TRA Workers 3.0)	RCR = 0.09
Inhalation, local, acute	15.01 mg/m ³ (TRA Workers 3.0)	RCR = 0.6
Dermal, local, long-term	0.014 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.9.5. Worker contributing scenario 4: contributing scenario 76 (PROC 4)

9.9.5.1. Conditions of use

contributing scenario 76: Semi Automated process. (e.g.: Semi automatic application of floor care and maintenance products)

	Method
Product (article) characteristics	
• Concentration of substance in mixture: 5-25%	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 4 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374) [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands face (480 cm ²)	TRA Workers 3.0

9.9.5.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 160. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1.351 mg/m³ (TRA Workers 3.0)	RCR = 0.054
Inhalation, local, acute	9.008 mg/m³ (TRA Workers 3.0)	RCR = 0.36
Dermal, local, long-term	0.072 mg/cm² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.9.6. Worker contributing scenario 5: contributing scenario 45 (PROC 8a)

9.9.6.1. Conditions of use

contributing scenario 45: Filling / preparation of equipment from drums or containers.

	Method
Product (article) characteristics	
• Concentration of substance in mixture: 5-25%	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• Containment: No	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374 with basic employee training) [Effectiveness Dermal: 90%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 20) [Effectiveness Inhal: 95%]	TRA Workers 3.0
Other conditions affecting workers exposure	

	Method
• Place of use: Outdoor	TRA Workers 3.0
• Process temperature (for liquid): <= 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands (960 cm ²)	TRA Workers 3.0

9.9.6.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 161. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1.051 mg/m³ (TRA Workers 3.0)	RCR = 0.042
Inhalation, local, acute	21.02 mg/m³ (TRA Workers 3.0)	RCR = 0.841
Dermal, local, long-term	0.012 mg/cm² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.9.7. Worker contributing scenario 6: contributing scenarios 45 and 81 (PROC 8b)

9.9.7.1. Conditions of use

contributing scenario 45: Filling / preparation of equipment from drums or containers. contributing scenario 81:
Dedicated facility

	Method
Product (article) characteristics	
• Concentration of substance in mixture: 5-25%	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	

	Method
• General ventilation: Enhanced general ventilation (5-10 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374) [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands (960 cm ²)	TRA Workers 3.0

9.9.7.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table162. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	2.252 mg/m ³ (TRA Workers 3.0)	RCR = 0.09
Inhalation, local, acute	9.008 mg/m ³ (TRA Workers 3.0)	RCR = 0.36
Dermal, local, long-term	0.12 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.9.8. Worker contributing scenario 7: contributing scenarios 42, 51 and 60 (PROC 10)

9.9.8.1. Conditions of use

contributing scenario 42: Cleaning with low-pressure washers contributing scenario 51: Rolling, Brushing
contributing scenario 60: No spraying

	Method
Product (article) characteristics	
• Concentration of substance in mixture: 1-5%	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374) [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands (960 cm ²)	TRA Workers 3.0

9.9.8.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table163. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1.501 mg/m³ (TRA Workers 3.0)	RCR = 0.06
Inhalation, local, acute	6.005 mg/m³ (TRA Workers 3.0)	RCR = 0.24
Dermal, local, long-term	0.08 mg/cm² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.9.9. Worker contributing scenario 8: contributing scenarios 44 and 10 (PROC 11)

9.9.9.1. Conditions of use

contributing scenario 44: Cleaning with high pressure washers contributing scenario 10: Spraying

	Method
Product (article) characteristics	
• Concentration of substance in mixture: 1-5%	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374) [Effectiveness Dermal: 80%]	TRA Workers 3.0

	Method
• Respiratory Protection: Yes (Respirator with APF of 20) [Effectiveness Inhal: 95%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): <= 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands and upper wrists (1500 cm ²)	TRA Workers 3.0

9.9.9.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table164. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	3.753 mg/m³ (TRA Workers 3.0) Additional data not used for RCR: 4.379 mg/m ³ (TRA Workers 3.0)	RCR = 0.15
Inhalation, local, acute	15.01 mg/m³ (TRA Workers 3.0) Additional data not used for RCR: 17.52 mg/m ³ (TRA Workers 3.0)	RCR = 0.6
Dermal, local, long-term	0.2 mg/cm² (TRA Workers 3.0) Additional data not used for RCR: 0.05 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.9.10. Worker contributing scenario 9: contributing scenario 34, 47, 48 and 4 (PROC 13)

9.9.10.1. Conditions of use

contributing scenario 34: Manual contributing scenario 47: Cleaning contributing scenario 48: Surfaces contributing scenario 4: Dipping, immersion and pouring

	Method
Product (article) characteristics	
• Concentration of substance in mixture: 1-5%	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374) [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands face (480 cm ²)	TRA Workers 3.0

9.9.10.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 165. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1.501 mg/m ³ (TRA Workers 3.0)	RCR = 0.06
Inhalation, local, acute	6.005 mg/m ³ (TRA Workers 3.0)	RCR = 0.24
Dermal, local, long-term	0.08 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.9.11. Worker contributing scenario 10: contributing scenarios 34, 48, 47 and 10 (PROC 10)

9.9.11.1. Conditions of use

contributing scenario 34: Manual contributing scenario 48: Surfaces contributing scenario 47: Cleaning contributing scenario 10: Spraying

	Method
Product (article) characteristics	
• Concentration of substance in mixture: 1-5%	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 4 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Good general ventilation (3-5 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374) [Effectiveness Dermal: 80%]	TRA Workers 3.0

	Method
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): <= 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands (960 cm ²)	TRA Workers 3.0

9.9.11.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 166. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	2.102 mg/m ³ (TRA Workers 3.0)	RCR = 0.084
Inhalation, local, acute	14.01 mg/m ³ (TRA Workers 3.0)	RCR = 0.56
Dermal, local, long-term	0.048 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.9.12. Worker contributing scenario 11: contributing scenarios 27 and 51 (PROC 10)

9.9.12.1. Conditions of use

contributing scenario 27: Ad hoc manual application via trigger sprays, dipping, etc contributing scenario 51: Rolling, brushing

	Method
Product (article) characteristics	
• Concentration of substance in mixture: 1-5%	TRA Workers 3.0

	Method
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 80%]	TRA Workers 3.0
• Local exhaust ventilation (for dermal): no [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands (960 cm ²)	TRA Workers 3.0

9.9.12.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 167. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1.001 mg/m ³ (TRA Workers 3.0) Additional data not used for RCR: 2.102 mg/m ³ (TRA Workers 3.0)	RCR = 0.04
Inhalation, local, acute	4.003 mg/m ³ (TRA Workers 3.0)	RCR = 0.16
Dermal, local, long-term	0.4 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)

Route of exposure and type of effects	Exposure concentration	Risk characterisation
	Additional data not used for RCR: 0.048 mg/cm ² (TRA Workers 3.0)	
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.9.13. Worker contributing scenario 12: contributing scenario 101 (PROC 4)

9.9.13.1. Conditions of use

contributing scenario 101: Application of cleaning products in closed systems

	Method
Product (article) characteristics	
• Concentration of substance in mixture: 1-5%	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Outdoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands face (480 cm ²)	TRA Workers 3.0

9.9.13.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 168. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1.752 mg/m ³ (TRA Workers 3.0)	RCR = 0.07
Inhalation, local, acute	7.006 mg/m ³ (TRA Workers 3.0)	RCR = 0.28
Dermal, local, long-term	0.2 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.9.14. Worker contributing scenario 13: contributing scenario 74 (PROC 4)

9.9.14.1. Conditions of use

contributing scenario 74: Cleaning of medical devices

	Method
Product (article) characteristics	
• Concentration of substance in mixture: 5-25%	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 80%]	TRA Workers 3.0
• Local exhaust ventilation (for dermal): yes [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0

	Method
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands face (480 cm ²)	TRA Workers 3.0

9.9.14.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 169. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1.501 mg/m ³ (TRA Workers 3.0)	RCR = 0.06
Inhalation, local, acute	6.005 mg/m ³ (TRA Workers 3.0)	RCR = 0.24
Dermal, local, long-term	0.12 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.9.15. Worker contributing scenario 14: contributing scenario 39 (PROC 8a)

9.9.15.1. Conditions of use

contributing scenario 39: Equipment cleaning and maintenance

	Method
Product (article) characteristics	
• Concentration of substance in mixture: 5-25%	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Good general ventilation (3-5 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 80%] <i>LEV effectiveness assumed to equate to SOP relating to draining etc prior to maintenance; additional LEV (80 %)</i>	TRA Workers 3.0
• Local exhaust ventilation (for dermal): no [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374) [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): <= 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands (960 cm ²)	TRA Workers 3.0

9.9.15.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 170. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.42 mg/m³ (TRA Workers 3.0)	RCR = 0.017
Inhalation, local, acute	8.407 mg/m³ (TRA Workers 3.0)	RCR = 0.336
Dermal, local, long-term	0.024 mg/cm² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.9.16. Worker contributing scenario 15: contributing scenarios 67 and 137 (PROC 2)

9.9.16.1. Conditions of use

contributing scenario 67: Storage contributing scenario 137: With occasional controlled exposure

	Method
Product (article) characteristics	
• Concentration of substance in mixture: 5-25%	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 15 minutes	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Good general ventilation (3-5 air changes per hour)	TRA Workers 3.0
• Containment: Closed continuous process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness	TRA Workers 3.0

	Method
Inhal: 90%]	
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands face (480 cm ²)	TRA Workers 3.0

9.9.16.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 171. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.21 mg/m³ (TRA Workers 3.0)	RCR < 0.01
Inhalation, local, acute	8.407 mg/m³ (TRA Workers 3.0)	RCR = 0.336
Dermal, local, long-term	0.012 mg/cm² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.10. Exposure scenario 10: Use by professional worker - Use by professional worker - Use in laboratories

Environment contributing scenario(s):	
Use by professional worker - Use in laboratories	ERC 8d
Worker contributing scenario(s):	
contributing scenarios 47, 51 and 103	PROC 10
contributing scenarios 36, 61 and 139	PROC 15

9.10.1. Environmental contributing scenario 1: Use by professional worker - Use in laboratories

9.10.1.1. Conditions of use

Amount used, frequency and duration of use (or from service life)
<ul style="list-style-type: none"> Daily wide dispersive use: ≤ 0.002 tonnes/day <i>Calculated using ESVOC 8.17.v1 also known as ESVOC 39 calculation - $8.141465753 \cdot 0.1 \cdot 0.0005$</i>
<ul style="list-style-type: none"> Percentage of EU tonnage used at regional scale: = 10 %
Conditions and measures related to sewage treatment plant
<ul style="list-style-type: none"> Municipal STP: Yes [Effectiveness Water: 87.36%]
<ul style="list-style-type: none"> Discharge rate of STP: $\geq 2E3$ m³/d
<ul style="list-style-type: none"> Application of the STP sludge on agricultural soil: Yes
Conditions and measures related to treatment of waste (including article waste)
<ul style="list-style-type: none"> Particular considerations on the waste treatment operations: No (low risk) (ERC based assessment demonstrating control of risk with default conditions. Low risk assumed for waste life stage. Waste disposal according to national/local legislation is sufficient.)
Other conditions affecting environmental exposure
<ul style="list-style-type: none"> Receiving surface water flow rate: $\geq 1.8E4$ m³/d

9.10.1.2. Releases

The local releases to the environment are reported in the following table.

Table 172. Local releases to the environment

Release	Release factor estimation method	Explanation / Justification
Water	Release factor (ESVOC 8.17.v1)	Initial release factor: 50% Final release factor: 50% Local release rate: 0.825 kg/day Explanation / Justification: ESVOC 8.17.v1 also known as ESVOC 39
Air	Release factor (ESVOC 8.17.v1)	Initial release factor: 50% Final release factor: 50% Explanation / Justification: ESVOC 8.17.v1 also known as ESVOC 39
Soil	Release factor (ESVOC 8.17.v1)	Final release factor: 0% Explanation / Justification: ESVOC 8.17.v1 also known as ESVOC 39

9.10.1.3. Exposure and risks for the environment and man via the environment

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 173. Exposure concentrations and risks for the environment

Protection target	Exposure concentration	Risk characterisation
Freshwater	Local PEC: 0.186 mg/L	RCR = 0.061
Sediment (freshwater)	Local PEC: 0.69 mg/kg dw	RCR = 0.061
Marine water	Local PEC: 0.017 mg/L	RCR = 0.057
Sediment (marine water)	Local PEC: 0.065 mg/kg dw	RCR = 0.057
Predator (freshwater)		
Predator (marine water)		
Top predator (marine water)		
Sewage treatment plant	Local PEC: 0.052 mg/L	RCR < 0.01
Air		
Agricultural soil	Local PEC: 0.008 mg/kg dw	RCR = 0.017

Protection target	Exposure concentration	Risk characterisation
Predator (terrestrial)		

Table 174. Contribution to oral intake for man via the environment from local contribution

Type of food	Estimated daily dose	Concentration in food
Drinking water	0.005 mg/kg bw/day	0.186 mg/L
Fish	9.648E-4 mg/kg bw/day	0.587 mg/kg ww
Leaf crops	5.789E-4 mg/kg bw/day	0.034 mg/kg ww
Root crops	2.546E-4 mg/kg bw/day	0.046 mg/kg ww
Meat	4.334E-8 mg/kg bw/day	1.008E-5 mg/kg ww
Milk	8.078E-7 mg/kg bw/day	1.008E-4 mg/kg ww

9.10.2. Worker contributing scenario 1: contributing scenarios 47, 51 and 103 (PROC 10)

9.10.2.1. Conditions of use

contributing scenario 47: Cleaning contributing scenario 51: Rolling, Brushing [CS51]. ; contributing scenario 103: Vessel and container cleaning [CS103]

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 80%]	TRA Workers 3.0
• Local exhaust ventilation (for dermal): no [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374	TRA Workers 3.0

	Method
with basic employee training) [Effectiveness Dermal: 90%]	
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands (960 cm ²)	TRA Workers 3.0

9.10.2.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 175. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1.001 mg/m ³ (TRA Workers 3.0)	RCR = 0.04
Inhalation, local, acute	20.02 mg/m ³ (TRA Workers 3.0)	RCR = 0.801
Dermal, local, long-term	0.04 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.10.3. Worker contributing scenario 2: contributing scenarios 36, 61 and 139 (PROC 15)

9.10.3.1. Conditions of use

contributing scenario 36: Laboratory activities contributing scenario 61: Small scale contributing scenario 139: Fume-cupboard Activity

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 80%]	TRA Workers 3.0
• Local exhaust ventilation (for dermal): yes [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: One hand face only (240 cm ²)	TRA Workers 3.0

9.10.3.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 176. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	5.004 mg/m ³ (TRA Workers 3.0)	RCR = 0.2
Inhalation, local, acute	20.02 mg/m ³ (TRA Workers 3.0)	RCR = 0.801
Dermal, local, long-term	0.02 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.11. Exposure scenario 11: Use by professional worker - Use by professional worker - Use in water treatment

Sector of use:

SU 8, Manufacture of bulk, large scale chemicals (including petroleum products)

SU 9, Manufacture of fine chemicals

Environment contributing scenario(s):	
Use by professional worker - Use in water treatment	ERC 8d
Worker contributing scenario(s):	
contributing scenario 67	PROC 1
contributing scenarios 15 and 55	PROC 3
contributing scenario 16	PROC 4
contributing scenarios 5 and 82	PROC 8a
contributing scenarios 81 and 8	PROC 8b
contributing scenarios 9 and 35	PROC 13

9.11.1. Environmental contributing scenario 1: Use by professional worker - Use in water treatment

9.11.1.1. Conditions of use

Amount used, frequency and duration of use (or from service life)
<ul style="list-style-type: none"> Daily wide dispersive use: ≤ 0.002 tonnes/day <i>From ESVOC 8.22b.v1 also known as ESVOC 47 calculation</i>
<ul style="list-style-type: none"> Percentage of EU tonnage used at regional scale: = 10 %
Conditions and measures related to sewage treatment plant
<ul style="list-style-type: none"> Municipal STP: Yes [Effectiveness Water: 87.36%]
<ul style="list-style-type: none"> Discharge rate of STP: $\geq 2E3$ m³/d
<ul style="list-style-type: none"> Application of the STP sludge on agricultural soil: Yes
Conditions and measures related to treatment of waste (including article waste)
<ul style="list-style-type: none"> Particular considerations on the waste treatment operations: No (low risk) (ERC based assessment)

demonstrating control of risk with default conditions. Low risk assumed for waste life stage. Waste disposal according to national/local legislation is sufficient.)

Other conditions affecting environmental exposure

- Receiving surface water flow rate: $\geq 1.8E4$ m³/d

9.11.1.2. Releases

The local releases to the environment are reported in the following table.

Table 177. Local releases to the environment

Release	Release factor estimation method	Explanation / Justification
Water	Release factor (ESVOC 8.22b.v1)	Initial release factor: 99% Final release factor: 99% Local release rate: 1.634 kg/day Explanation / Justification: ESVOC 8.22b.v1 also known as ESVOC 47
Air	Release factor (ESVOC 8.22b.v1)	Initial release factor: 1% Final release factor: 1% Explanation / Justification: ESVOC 8.22b.v1 also known as ESVOC 47
Soil	Release factor (ESVOC 8.22b.v1)	Final release factor: 0% Explanation / Justification: ESVOC 8.22b.v1 also known as ESVOC 47

9.11.1.3. Exposure and risks for the environment and man via the environment

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 178. Exposure concentrations and risks for the environment

Protection target	Exposure concentration	Risk characterisation
Freshwater	Local PEC: 0.191 mg/L	RCR = 0.062
Sediment (freshwater)	Local PEC: 0.709 mg/kg dw	RCR = 0.062
Marine water	Local PEC: 0.018 mg/L	RCR = 0.059
Sediment (marine water)	Local PEC: 0.067 mg/kg dw	RCR = 0.059

Protection target	Exposure concentration	Risk characterisation
Predator (freshwater)		
Predator (marine water)		
Top predator (marine water)		
Sewage treatment plant	Local PEC: 0.103 mg/L	RCR < 0.01
Air		
Agricultural soil	Local PEC: 0.008 mg/kg dw	RCR = 0.017
Predator (terrestrial)		

Table 179. Contribution to oral intake for man via the environment from local contribution

Type of food	Estimated daily dose	Concentration in food
Drinking water	0.005 mg/kg bw/day	0.191 mg/L
Fish	9.913E-4 mg/kg bw/day	0.603 mg/kg ww
Leaf crops	5.789E-4 mg/kg bw/day	0.034 mg/kg ww
Root crops	2.554E-4 mg/kg bw/day	0.047 mg/kg ww
Meat	4.43E-8 mg/kg bw/day	1.03E-5 mg/kg ww
Milk	8.257E-7 mg/kg bw/day	1.03E-4 mg/kg ww

9.11.2. Worker contributing scenario 1: contributing scenario 67 (PROC 1)

9.11.2.1. Conditions of use

contributing scenario 67: Storage

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Closed system (minimal contact during routine operations)	TRA Workers 3.0

	Method
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: One hand face only (240 cm ²)	TRA Workers 3.0

9.11.2.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 180. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.025 mg/m ³ (TRA Workers 3.0)	RCR < 0.01
Inhalation, local, acute	0.1 mg/m ³ (TRA Workers 3.0)	RCR < 0.01
Dermal, local, long-term	0.01 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.11.3. Worker contributing scenario 2: contributing scenarios 15 and 55 (PROC 3)

9.11.3.1. Conditions of use

contributing scenario 15: General exposures (closed systems) contributing scenario 55: Batch process

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Good general ventilation (3-5 air changes per hour)	TRA Workers 3.0
• Containment: Closed batch process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 80%] <i>Closed equipment, enclosed or vented transfer points</i>	TRA Workers 3.0
• Local exhaust ventilation (for dermal): no [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: One hand face only (240 cm ²)	TRA Workers 3.0

9.11.3.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 181. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.876 mg/m³ (TRA Workers 3.0)	RCR = 0.035
Inhalation, local, acute	3.503 mg/m³ (TRA Workers 3.0)	RCR = 0.14
Dermal, local, long-term	0.201 mg/cm² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.11.4. Worker contributing scenario 3: contributing scenario 16 (PROC 4)

9.11.4.1. Conditions of use

contributing scenario 16: General exposures (open systems)

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Good general ventilation (3-5 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 80%]	TRA Workers 3.0
• Local exhaust ventilation (for dermal): no [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374) [Effectiveness Dermal: 80%]	TRA Workers 3.0

	Method
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): <= 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands face (480 cm ²)	TRA Workers 3.0

9.11.4.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 182. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.35 mg/m ³ (TRA Workers 3.0)	RCR = 0.014
Inhalation, local, acute	7.006 mg/m ³ (TRA Workers 3.0)	RCR = 0.28
Dermal, local, long-term	0.04 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.11.5. Worker contributing scenario 4: contributing scenarios 5 and 82 (PROC 8a)

9.11.5.1. Conditions of use

contributing scenario 5: Equipment maintenance contributing scenario 82: Non-dedicated facility

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	

	Method
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Good general ventilation (3-5 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 80%]	TRA Workers 3.0
• Local exhaust ventilation (for dermal): no [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%] <i>effectiveness of 90% assumed to equate to SOP relating to draining etc prior to maintenance</i>	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands (960 cm ²)	TRA Workers 3.0

9.11.5.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 183. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	3.503 mg/m ³ (TRA Workers 3.0)	RCR = 0.14
Inhalation, local, acute	14.01 mg/m ³ (TRA Workers 3.0)	RCR = 0.56
Dermal, local, long-term	1 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.11.6. Worker contributing scenario 5: contributing scenarios 81 and 8 (PROC 8b)

9.11.6.1. Conditions of use

contributing scenario 81: Drum/batch transfers contributing scenario 8: Dedicated facility

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%] <i>Use of drum pumps considered to offer 80% exposure reduction (x0.2)</i>	TRA Workers 3.0
• Local exhaust ventilation (for dermal): no [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands (960 cm ²)	TRA Workers 3.0

9.11.6.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 184. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1.251 mg/m³ (TRA Workers 3.0)	RCR = 0.05
Inhalation, local, acute	5.004 mg/m³ (TRA Workers 3.0)	RCR = 0.2
Dermal, local, long-term	1 mg/cm² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.11.7. Worker contributing scenario 6: contributing scenarios 9 and 35 (PROC 13)

9.11.7.1. Conditions of use

contributing scenario 9: Pouring from small containers contributing scenario 35: Treatment by dipping and pouring

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 4 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Good general ventilation (3-5 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 80%]	TRA Workers 3.0
• Local exhaust ventilation (for dermal): no [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374 with basic employee training) [Effectiveness Dermal: 90%]	TRA Workers 3.0

	Method
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): <= 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands face (480 cm ²)	TRA Workers 3.0

9.11.7.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 185. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	2.102 mg/m ³ (TRA Workers 3.0)	RCR = 0.084
Inhalation, local, acute	14.01 mg/m ³ (TRA Workers 3.0)	RCR = 0.56
Dermal, local, long-term	0.12 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.12. Exposure scenario 12: Consumer Use - Consumer Use - Use as a cleaning agent

Environment contributing scenario(s):	
Consumer Use - Use as a cleaning agent	ERC 8d
Consumer contributing scenario(s):	
Consumer contributing scenario - Air care products--Air care, instant action (aerosol sprays)	PC 3
Consumer contributing scenario - Air care products--Air care, continuous action (solid and liquid)	PC 3
Consumer contributing scenario - Anti-freeze and de-icing product-Washing car window	PC 4
Consumer contributing scenario - Anti-freeze and de-icing products--Pouring into radiator	PC 4
Consumer contributing scenario - Anti-freeze and de-icing products--Lock de-icer	PC 4
Consumer contributing scenario - Biocidal products (excipient use only for solvent products)--Laundry and dish washing products	PC 8
Consumer contributing scenario - Biocidal products (excipient use only for solvent products)--Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners)	PC 8
Consumer contributing scenario - Biocidal products (excipient use only for solvent products)--Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)	PC 8
Consumer contributing scenario - Coatings and paints, fillers putties, thinners--Waterborne latex wall paint	PC 9a
Consumer contributing scenario - Coatings and paints, fillers putties, thinners--Solvent rich, high solid, water borne paint	PC 9a
Consumer contributing scenario - Coatings and paints, fillers putties, thinners--Aerosol spray can	PC 9a
Consumer contributing scenario - Coatings and paints, fillers putties, thinners--	PC 9a

Removers (paint-, glue-, wall paper-, sealant-remover)

Consumer contributing scenario - Fillers, putties, plasters, modeling clay-- PC 9b

Plasters and floor equalizers

Consumer contributing scenario - Fillers, putties, plasters, modeling clay-- PC 9b

Modelling clay

Consumer contributing scenario - Fillers, putties, plasters, modeling clay--Fillers PC 9b
and putty

Consumer contributing scenario - Finger paints -Finger paints PC 9c

Consumer contributing scenario - Lubricants, greases, and release products-- PC 24

Pastes

Consumer contributing scenario - Lubricants, greases, and release products-- PC 24

Sprays

Consumer contributing scenario - Lubricants, greases, and release products-- PC 24

Liquids

Consumer contributing scenario - Washing and cleaning products (including PC 35
solvent based products)--Cleaners, liquids (all purpose cleaners, sanitary
products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners)

Consumer contributing scenario - Washing and cleaning products (including PC 35
solvent based products)--Cleaners, trigger sprays (all purpose cleaners, sanitary
products, glass cleaners)

Consumer contributing scenario - Welding and soldering products, flux products- PC 38
-NOTE, n_assessment not in TRA

Consumer contributing scenario - Washing and cleaning products (including PC 35
solvent based products)--Laundry and dish washing products

9.12.1. Environmental contributing scenario 1: Consumer Use - Use as a cleaning agent

9.12.1.1. Conditions of use

Amount used, frequency and duration of use (or from service life)

• Daily wide dispersive use: ≤ 0.002 tonnes/day

*Calculated using ESVOC SpERC 8.4c.v1 also known as ESVOC 10 SpERC calculation -
8.141465753*0.1*0.0005*

• Percentage of EU tonnage used at regional scale: = 10 %
Conditions and measures related to treatment of waste (including article waste)
• Particular considerations on the waste treatment operations: No (low risk) (ERC based assessment demonstrating control of risk with default conditions. Low risk assumed for waste life stage. Waste disposal according to national/local legislation is sufficient.)
Other conditions affecting environmental exposure
• Municipal STP: Yes [Effectiveness Water: 87.36%]
• Discharge rate of STP: $\geq 2E3$ m ³ /d
• Application of the STP sludge on agricultural soil: Yes
• Receiving surface water flow rate: $\geq 1.8E4$ m ³ /d

9.12.1.2. Releases

The local releases to the environment are reported in the following table.

Table 186. Local releases to the environment

Release	Release factor estimation method	Explanation / Justification
Water	Release factor (ESVOC SpERC 8.4c.v1)	Initial release factor: 2.5% Final release factor: 2.5% Local release rate: 0.041 kg/day Explanation / Justification: ESVOC SpERC 8.4c.v1 also known as ESVOC 10 SpERC
Air	Release factor (ESVOC SpERC 8.4c.v1)	Initial release factor: 95% Final release factor: 95% Explanation / Justification: ESVOC SpERC 8.4c.v1 also known as ESVOC 10 SpERC
Soil	Release factor (ESVOC SpERC 8.4c.v1)	Final release factor: 0% Explanation / Justification: ESVOC SpERC 8.4c.v1 also known as ESVOC 10 SpERC

9.12.1.3. Exposure and risks for the environment and man via the environment

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 187. Exposure concentrations and risks for the environment

Protection target	Exposure concentration	Risk characterisation
Freshwater	Local PEC: 0.181 mg/L	RCR = 0.059
Sediment (freshwater)	Local PEC: 0.672 mg/kg dw	RCR = 0.059
Marine water	Local PEC: 0.017 mg/L	RCR = 0.055
Sediment (marine water)	Local PEC: 0.063 mg/kg dw	RCR = 0.055
Predator (freshwater)		
Predator (marine water)		
Top predator (marine water)		
Sewage treatment plant	Local PEC: 0.003 mg/L	RCR < 0.01
Air		
Agricultural soil	Local PEC: 0.008 mg/kg dw	RCR = 0.016
Predator (terrestrial)		

Table 188. Contribution to oral intake for man via the environment from local contribution

Type of food	Estimated daily dose	Concentration in food
Drinking water	0.005 mg/kg bw/day	0.181 mg/L
Fish	9.391E-4 mg/kg bw/day	0.572 mg/kg ww
Leaf crops	5.788E-4 mg/kg bw/day	0.034 mg/kg ww
Root crops	2.539E-4 mg/kg bw/day	0.046 mg/kg ww
Meat	4.241E-8 mg/kg bw/day	9.863E-6 mg/kg ww
Milk	7.905E-7 mg/kg bw/day	9.863E-5 mg/kg ww

9.12.2. Consumer contributing scenario 1: Consumer contributing scenario - Air care products-- Air care, instant action (aerosol sprays) (PC 3)

9.12.2.1. Conditions of use

Description of product/article/activity covered: Air care products--Air care, instant action (aerosol sprays)

Air care products--Air care, instant action (aerosol sprays)

	Method
Product (article) characteristics	
• Concentration of substance in mixture: = 0.1 g/g	TRA Consumers 3.1
• Exposure via Inhalation route: Yes	TRA Consumers 3.1
• Spray: Yes	TRA Consumers 3.1
Amount used, frequency and duration of use/exposure	
• Frequency of use over a year: Frequent	TRA Consumers 3.1
• Frequency of use over a day: = 4 events/day	TRA Consumers 3.1
• Amount of product used per application: = 0.1 g/event	TRA Consumers 3.1
• Exposure time: = 0.25 hr	TRA Consumers 3.1
Measures related to information and behavioural advice to consumers including personal protection and hygiene	
• Place of use: Indoor	TRA Consumers 3.1
Other conditions affecting consumers exposure	
• Inhalation factor: = 1	TRA Consumers 3.1

9.12.2.2. Exposure and risks for consumers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 189. Exposure concentrations and risks for consumers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1.739 mg/m ³ (TRA Consumers 3.1)	RCR = 0.07
Inhalation, local, acute		

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.12.3. Consumer contributing scenario 2: Consumer contributing scenario - Air care products-- Air care, continuous action (solid and liquid) (PC 3)

9.12.3.1. Conditions of use

Description of product/article/activity covered: Air care products--Air care, instant action (aerosol sprays)

Air care products--Air care, continuous action (solid and liquid)

	Method
Product (article) characteristics	
• Concentration of substance in mixture: = 0.1 g/g	TRA Consumers 3.1
• Exposure via Inhalation route: Yes	TRA Consumers 3.1
• Spray: Yes	TRA Consumers 3.1
Amount used, frequency and duration of use/exposure	
• Frequency of use over a year: Frequent	TRA Consumers 3.1
• Frequency of use over a day: = 1 events/day	TRA Consumers 3.1
• Amount of product used per application: = 0.48 g/event	TRA Consumers 3.1
• Exposure time: = 8 hr	TRA Consumers 3.1
Measures related to information and behavioural advice to consumers including personal protection and hygiene	
• Place of use: Indoor	TRA Consumers 3.1
Other conditions affecting consumers exposure	
• Inhalation factor: = 1	TRA Consumers 3.1

9.12.3.2. Exposure and risks for consumers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 190. Exposure concentrations and risks for consumers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.414 mg/m ³ (TRA Consumers 3.1)	RCR = 0.017
Inhalation, local, acute		
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.12.4. Consumer contributing scenario 3: Consumer contributing scenario - Anti-freeze and de-icing product-Washing car window (PC 4)

9.12.4.1. Conditions of use

Description of product/article/activity covered: Anti-freeze and de-icing products--Washing car window

Anti-freeze and de-icing product-Washing car window

	Method
Product (article) characteristics	
• Concentration of substance in mixture: = 0.01 g/g	TRA Consumers 3.1
• Exposure via Inhalation route: Yes	TRA Consumers 3.1
• Spray: No	TRA Consumers 3.1
Amount used, frequency and duration of use/exposure	
• Frequency of use over a year: Frequent	TRA Consumers 3.1
• Frequency of use over a day: = 1 events/day	TRA Consumers 3.1
• Amount of product used per application: = 0.5 g/event	TRA Consumers 3.1

	Method
• Exposure time: = 0.02 hr	TRA Consumers 3.1
Measures related to information and behavioural advice to consumers including personal protection and hygiene	
• Place of use: Indoor	TRA Consumers 3.1
Other conditions affecting consumers exposure	
• Inhalation factor: = 1	TRA Consumers 3.1

9.12.4.2. Exposure and risks for consumers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 191. Exposure concentrations and risks for consumers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.247 mg/m ³ (TRA Consumers 3.1)	RCR < 0.01
Inhalation, local, acute		
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.12.5. Consumer contributing scenario 4: Consumer contributing scenario - Anti-freeze and de-icing products--Pouring into radiator (PC 4)

9.12.5.1. Conditions of use

Description of product/article/activity covered: Anti-freeze and de-icing products--Pouring into radiator

Anti-freeze and de-icing products--Pouring into radiator

	Method
Product (article) characteristics	
• Concentration of substance in mixture: = 0.1 g/g	TRA Consumers 3.1
• Exposure via Inhalation route: Yes	TRA Consumers 3.1
• Spray: No	TRA Consumers 3.1
Amount used, frequency and duration of use/exposure	
• Frequency of use over a year: Very Infrequent	TRA Consumers 3.1
• Amount of product used per application: = 2E3 g/event	TRA Consumers 3.1
• Exposure time: = 0.17 hr	TRA Consumers 3.1
Measures related to information and behavioural advice to consumers including personal protection and hygiene	
• Place of use: Indoor	TRA Consumers 3.1
Other conditions affecting consumers exposure	
• Inhalation factor: = 0.05 <i>It is assumed 5% of the product (de-icer/windshield wash) is released to air during consumer use (i.e. pouring). Inhalation factor = 0.05.</i>	TRA Consumers 3.1

9.12.5.2. Exposure and risks for consumers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 192. Exposure concentrations and risks for consumers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	4.537 mg/m ³ (TRA Consumers 3.1)	RCR = 0.182
Inhalation, local, acute		
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.12.6. Consumer contributing scenario 5: Consumer contributing scenario - Anti-freeze and de-icing products--Lock de-icer (PC 4)

9.12.6.1. Conditions of use

Description of product/article/activity covered: Anti-freeze and de-icing products--Lock de-icer

Anti-freeze and de-icing products--Lock de-icer

	Method
Product (article) characteristics	
• Concentration of substance in mixture: = 0.1 g/g	TRA Consumers 3.1
• Exposure via Inhalation route: Yes	TRA Consumers 3.1
• Spray: No	TRA Consumers 3.1
Amount used, frequency and duration of use/exposure	
• Frequency of use over a year: Frequent	TRA Consumers 3.1
• Frequency of use over a day: = 1 events/day	TRA Consumers 3.1
• Amount of product used per application: = 4 g/event	TRA Consumers 3.1
• Exposure time: = 0.25 hr	TRA Consumers 3.1
Measures related to information and behavioural advice to consumers including personal protection and hygiene	
• Place of use: Indoor	TRA Consumers 3.1
Other conditions affecting consumers exposure	
• Inhalation factor: = 1	TRA Consumers 3.1

9.12.6.2. Exposure and risks for consumers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 193. Exposure concentrations and risks for consumers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	17.39 mg/m³ (TRA Consumers 3.1)	RCR = 0.696
Inhalation, local, acute		
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.12.7. Consumer contributing scenario 6: Consumer contributing scenario - Biocidal products (excipient use only for solvent products)--Laundry and dish washing products (PC 8)

9.12.7.1. Conditions of use

Description of product/article/activity covered: Biocidal products (excipient use only for solvent products)--Laundry and dish washing products

Biocidal products (excipient use only for solvent products)--Laundry and dish washing products

	Method
Product (article) characteristics	
• Concentration of substance in mixture: = 0.05 g/g	TRA Consumers 3.1
• Exposure via Inhalation route: Yes	TRA Consumers 3.1
• Spray: No	TRA Consumers 3.1
Amount used, frequency and duration of use/exposure	
• Frequency of use over a year: Frequent	TRA Consumers 3.1
• Frequency of use over a day: = 1 events/day	TRA Consumers 3.1
• Amount of product used per application: = 15 g/event	TRA Consumers 3.1
• Exposure time: = 0.5 hr	TRA Consumers 3.1
Measures related to information and behavioural advice to consumers including personal protection	

	Method
and hygiene	
• Place of use: Indoor	TRA Consumers 3.1
Other conditions affecting consumers exposure	
• Inhalation factor: = 0.05	TRA Consumers 3.1

9.12.7.2. Exposure and risks for consumers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 194. Exposure concentrations and risks for consumers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1.442 mg/m ³ (TRA Consumers 3.1)	RCR = 0.058
Inhalation, local, acute		
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.12.8. Consumer contributing scenario 7: Consumer contributing scenario - Biocidal products (excipient use only for solvent products)--Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners) (PC 8)

9.12.8.1. Conditions of use

Description of product/article/activity covered:Biocidal products (excipient use only for solvent products)--Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners)

Biocidal products (excipient use only for solvent products)--Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners)

	Method
Product (article) characteristics	
• Concentration of substance in mixture: = 0.05 g/g	TRA Consumers 3.1
• Exposure via Inhalation route: Yes	TRA Consumers 3.1
• Spray: No	TRA Consumers 3.1
Amount used, frequency and duration of use/exposure	
• Frequency of use over a year: Frequent	TRA Consumers 3.1
• Frequency of use over a day: = 1 events/day	TRA Consumers 3.1
• Amount of product used per application: = 27 g/event	TRA Consumers 3.1
• Exposure time: = 0.33 hr	TRA Consumers 3.1
Measures related to information and behavioural advice to consumers including personal protection and hygiene	
• Place of use: Indoor	TRA Consumers 3.1
Other conditions affecting consumers exposure	
• Inhalation factor: = 0.05	TRA Consumers 3.1

9.12.8.2. Exposure and risks for consumers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 195. Exposure concentrations and risks for consumers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	2.817 mg/m³ (TRA Consumers 3.1)	RCR = 0.113
Inhalation, local, acute		
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.12.9. Consumer contributing scenario 8: Consumer contributing scenario - Biocidal products (excipient use only for solvent products)--Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) (PC 8)

9.12.9.1. Conditions of use

Description of product/article/activity covered: Biocidal products (excipient use only for solvent products)--Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)

Biocidal products (excipient use only for solvent products)--Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)

	Method
Product (article) characteristics	
• Concentration of substance in mixture: = 0.015 g/g	TRA Consumers 3.1
• Exposure via Inhalation route: Yes	TRA Consumers 3.1
• Spray: No	TRA Consumers 3.1
Amount used, frequency and duration of use/exposure	
• Frequency of use over a year: Frequent	TRA Consumers 3.1
• Frequency of use over a day: = 1 events/day	TRA Consumers 3.1
• Amount of product used per application: = 35 g/event	TRA Consumers 3.1
• Exposure time: = 0.17 hr	TRA Consumers 3.1
Measures related to information and behavioural advice to consumers including personal protection and hygiene	
• Place of use: Indoor	TRA Consumers 3.1
Other conditions affecting consumers exposure	
• Inhalation factor: = 1	TRA Consumers 3.1

9.12.9.2. Exposure and risks for consumers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 196. Exposure concentrations and risks for consumers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	23.82 mg/m³ (TRA Consumers 3.1)	RCR = 0.953
Inhalation, local, acute		
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.12.10. Consumer contributing scenario 9: Consumer contributing scenario - Coatings and paints, fillers putties, thinners--Waterborne latex wall paint (PC 9a)

9.12.10.1. Conditions of use

Description of product/article/activity covered:Coatings and paints, fillers putties, thinners--Waterborne latex wall paint

Coatings and paints, fillers putties, thinners--Waterborne latex wall paint

	Method
Product (article) characteristics	
• Concentration of substance in mixture: = 0.015 g/g	TRA Consumers 3.1
• Exposure via Inhalation route: Yes	TRA Consumers 3.1
• Spray: No	TRA Consumers 3.1
Amount used, frequency and duration of use/exposure	
• Frequency of use over a year: Infrequent	TRA Consumers 3.1
• Amount of product used per application: = 2.76E3 g/event	TRA Consumers 3.1
• Exposure time: = 2.2 hr	TRA Consumers 3.1
Measures related to information and behavioural advice to consumers including personal protection and hygiene	

	Method
• Place of use: Indoor	TRA Consumers 3.1
Other conditions affecting consumers exposure	
• Inhalation factor: = 0.05 <i>It is assumed 5% of the product is released to air during consumer use (i.e. painting and DIY). Inhalation factor = 0.05.</i>	TRA Consumers 3.1

9.12.10.2. Exposure and risks for consumers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 197. Exposure concentrations and risks for consumers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1.784 mg/m³ (TRA Consumers 3.1)	RCR = 0.071
Inhalation, local, acute		
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.12.11. Consumer contributing scenario 10: Consumer contributing scenario - Coatings and paints, fillers putties, thinners--Solvent rich, high solid, water borne paint (PC 9a)

9.12.11.1. Conditions of use

Description of product/article/activity covered: Coatings and paints, fillers putties, thinners--Solvent rich, high solid, water borne paint

Coatings and paints, fillers putties, thinners--Solvent rich, high solid, water borne paint

	Method
Product (article) characteristics	
• Concentration of substance in mixture: = 0.1 g/g	TRA Consumers 3.1
• Exposure via Inhalation route: Yes	TRA Consumers 3.1
• Spray: No	TRA Consumers 3.1
Amount used, frequency and duration of use/exposure	
• Frequency of use over a year: Infrequent	TRA Consumers 3.1
• Amount of product used per application: = 744 g/event	TRA Consumers 3.1
• Exposure time: = 2.2 hr	TRA Consumers 3.1
Measures related to information and behavioural advice to consumers including personal protection and hygiene	
• Place of use: Indoor	TRA Consumers 3.1
Other conditions affecting consumers exposure	
• Inhalation factor: = 0.05 <i>It is assumed 5% of the product is released to air during consumer use (i.e. painting and DIY). Inhalation factor = 0.05.</i>	TRA Consumers 3.1

9.12.11.2. Exposure and risks for consumers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table198. Exposure concentrations and risks for consumers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	3.207 mg/m ³ (TRA Consumers 3.1)	RCR = 0.128
Inhalation, local, acute		
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.12.12. Consumer contributing scenario 11: Consumer contributing scenario - Coatings and paints, fillers putties, thinners--Aerosol spray can (PC 9a)

9.12.12.1. Conditions of use

Description of product/article/activity covered: Coatings and paints, fillers putties, thinners--Aerosol spray can

Coatings and paints, fillers putties, thinners--Aerosol spray can

	Method
Product (article) characteristics	
• Concentration of substance in mixture: = 0.05 g/g	TRA Consumers 3.1
• Exposure via Inhalation route: Yes	TRA Consumers 3.1
• Spray: Yes	TRA Consumers 3.1
Amount used, frequency and duration of use/exposure	
• Frequency of use over a year: Very Infrequent	TRA Consumers 3.1
• Amount of product used per application: = 215 g/event	TRA Consumers 3.1
• Exposure time: = 0.33 hr	TRA Consumers 3.1
Measures related to information and behavioural advice to consumers including personal protection and hygiene	
• Place of use: Indoor	TRA Consumers 3.1
Other conditions affecting consumers exposure	
• Inhalation factor: = 1	TRA Consumers 3.1

9.12.12.2. Exposure and risks for consumers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 199. Exposure concentrations and risks for consumers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	4.487 mg/m ³ (TRA Consumers 3.1)	RCR = 0.18
Inhalation, local, acute		
Dermal, local, long-term		Qualitative (see below)

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.12.13. Consumer contributing scenario 12: Consumer contributing scenario - Coatings and paints, fillers putties, thinners--Removers (paint-, glue-, wall paper-, sealant-remover) (PC 9a)

9.12.13.1. Conditions of use

Description of product/article/activity covered: Coatings and paints, fillers putties, thinners--Removers (paint-, glue-, wall paper-, sealant-remover)

Coatings and paints, fillers putties, thinners--Removers (paint-, glue-, wall paper-, sealant-remover)

	Method
Product (article) characteristics	
• Concentration of substance in mixture: = 0.1 g/g	TRA Consumers 3.1
• Exposure via Inhalation route: Yes	TRA Consumers 3.1
• Spray: No	TRA Consumers 3.1
Amount used, frequency and duration of use/exposure	
• Frequency of use over a year: Infrequent	TRA Consumers 3.1
• Amount of product used per application: = 491 g/event	TRA Consumers 3.1
• Exposure time: = 2 hr	TRA Consumers 3.1
Measures related to information and behavioural advice to consumers including personal protection and hygiene	
• Place of use: Indoor	TRA Consumers 3.1
Other conditions affecting consumers exposure	
• Inhalation factor: = 0.5	TRA Consumers 3.1

9.12.13.2. Exposure and risks for consumers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 200. Exposure concentrations and risks for consumers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	22.32 mg/m ³ (TRA Consumers 3.1)	RCR = 0.893
Inhalation, local, acute		
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.12.14. Consumer contributing scenario 13: Consumer contributing scenario - Fillers, putties, plasters, modeling clay--Plasters and floor equalizers (PC 9b)

9.12.14.1. Conditions of use

Description of product/article/activity covered: Fillers, putties, plasters, modeling clay--Plasters and floor equalizers

Fillers, putties, plasters, modeling clay--Plasters and floor equalizers

	Method
Product (article) characteristics	
• Concentration of substance in mixture: = 0.006 g/g	TRA Consumers 3.1
• Exposure via Inhalation route: Yes	TRA Consumers 3.1
• Spray: No	TRA Consumers 3.1
Amount used, frequency and duration of use/exposure	
• Frequency of use over a year: Infrequent	TRA Consumers 3.1
• Amount of product used per application: = 1.38E4 g/event	TRA Consumers 3.1
• Exposure time: = 2 hr	TRA Consumers 3.1

	Method
Measures related to information and behavioural advice to consumers including personal protection and hygiene	
• Place of use: Indoor	TRA Consumers 3.1
Other conditions affecting consumers exposure	
• Inhalation factor: = 0.05 <i>It is assumed 5% of the product is released to air during consumer use (i.e. plastering and DIY). Inhalation factor = 0.05.</i>	TRA Consumers 3.1

9.12.14.2. Exposure and risks for consumers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 201. Exposure concentrations and risks for consumers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	3.764 mg/m³ (TRA Consumers 3.1)	RCR = 0.15
Inhalation, local, acute		
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.12.15. Consumer contributing scenario 14: Consumer contributing scenario - Fillers, putties, plasters, modeling clay--Modelling clay (PC 9b)

9.12.15.1. Conditions of use

Description of product/article/activity covered: Fillers, putties, plasters, modeling clay--Modelling clay

Fillers, putties, plasters, modeling clay--Modelling clay

	Method
Product (article) characteristics	
• Concentration of substance in mixture: = 0.01 g/g	TRA Consumers 3.1
• Exposure via Inhalation route: Yes	TRA Consumers 3.1
• Spray: No	TRA Consumers 3.1
Amount used, frequency and duration of use/exposure	
• Frequency of use over a year: Infrequent	TRA Consumers 3.1
• Amount of product used per application: = 1.38E4 g/event	TRA Consumers 3.1
• Exposure time: = 8 hr	TRA Consumers 3.1
Measures related to information and behavioural advice to consumers including personal protection and hygiene	
• Place of use: Indoor	TRA Consumers 3.1
Other conditions affecting consumers exposure	
• Inhalation factor: = 0.05 <i>It is assumed 5% of the product is released to air during consumer use (i.e. modelling). Inhalation factor = 0.05.</i>	TRA Consumers 3.1

9.12.15.2. Exposure and risks for consumers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 202. Exposure concentrations and risks for consumers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	2.379 mg/m³ (TRA Consumers 3.1)	RCR = 0.095
Inhalation, local, acute		
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.12.16. Consumer contributing scenario 15: Consumer contributing scenario - Fillers, putties, plasters, modeling clay--Fillers and putty (PC 9b)

9.12.16.1. Conditions of use

Description of product/article/activity covered: Fillers, putties, plasters, modeling clay--Fillers and putty

Fillers, putties, plasters, modeling clay--Fillers and putty

	Method
Product (article) characteristics	
• Concentration of substance in mixture: = 0.02 g/g	TRA Consumers 3.1
• Exposure via Inhalation route: Yes	TRA Consumers 3.1
• Spray: No	TRA Consumers 3.1
Amount used, frequency and duration of use/exposure	
• Frequency of use over a year: Infrequent	TRA Consumers 3.1
• Amount of product used per application: = 85 g/event	TRA Consumers 3.1
• Exposure time: = 4 hr	TRA Consumers 3.1
Measures related to information and behavioural advice to consumers including personal protection and hygiene	
• Place of use: Indoor	TRA Consumers 3.1
Other conditions affecting consumers exposure	
• Inhalation factor: = 1	TRA Consumers 3.1

9.12.16.2. Exposure and risks for consumers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 203. Exposure concentrations and risks for consumers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1 mg/m ³ (TRA Consumers 3.1)	RCR = 0.04
Inhalation, local, acute		
Dermal, local, long-term		Qualitative (see below)

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.12.17. Consumer contributing scenario 16: Consumer contributing scenario - Finger paints - Finger paints (PC 9c)

9.12.17.1. Conditions of use

Description of product/article/activity covered: Finger paints --Finger paints

Finger paints -Finger paints

	Method
Product (article) characteristics	
• Concentration of substance in mixture: = 0.01 g/g	TRA Consumers 3.1
• Exposure via Inhalation route: Yes	TRA Consumers 3.1
• Spray: No	TRA Consumers 3.1
Amount used, frequency and duration of use/exposure	
• Frequency of use over a year: Occasional	TRA Consumers 3.1
• Amount of product used per application: = 1.38E4 g/event	TRA Consumers 3.1
• Exposure time: = 8 hr	TRA Consumers 3.1
Measures related to information and behavioural advice to consumers including personal protection and hygiene	
• Place of use: Indoor	TRA Consumers 3.1
Other conditions affecting consumers exposure	
• Inhalation factor: = 0.05 <i>It is assumed 5% of the product is released from paint to air during finger painting (children). Inhalation factor = 0.05.</i>	TRA Consumers 3.1

9.12.17.2. Exposure and risks for consumers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 204. Exposure concentrations and risks for consumers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	11.9 mg/m ³ (TRA Consumers 3.1)	RCR = 0.476
Inhalation, local, acute		
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.12.18. Consumer contributing scenario 17: Consumer contributing scenario - Lubricants, greases, and release products--Pastes (PC 24)

9.12.18.1. Conditions of use

Description of product/article/activity covered: Lubricants, greases, and release products--Liquids

Lubricants, greases, and release products--Pastes

	Method
Product (article) characteristics	
• Concentration of substance in mixture: = 0.1 g/g	TRA Consumers 3.1
• Exposure via Inhalation route: Yes	TRA Consumers 3.1
• Spray: No	TRA Consumers 3.1
Amount used, frequency and duration of use/exposure	
• Frequency of use over a year: Very Infrequent	TRA Consumers 3.1
• Amount of product used per application: = 34 g/event	TRA Consumers 3.1
• Exposure time: = 0.17 hr	TRA Consumers 3.1

	Method
Measures related to information and behavioural advice to consumers including personal protection and hygiene	
• Place of use: Indoor	TRA Consumers 3.1
Other conditions affecting consumers exposure	
• Inhalation factor: = 1	TRA Consumers 3.1

9.12.18.2. Exposure and risks for consumers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 205. Exposure concentrations and risks for consumers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1.543 mg/m ³ (TRA Consumers 3.1)	RCR = 0.062
Inhalation, local, acute		
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.12.19. Consumer contributing scenario 18: Consumer contributing scenario - Lubricants, greases, and release products--Sprays (PC 24)

9.12.19.1. Conditions of use

Description of product/article/activity covered: Lubricants, greases, and release products--Sprays

Lubricants, greases, and release products--Sprays

	Method
Product (article) characteristics	
• Concentration of substance in mixture: = 0.007 g/g	TRA Consumers 3.1

	Method
• Exposure via Inhalation route: Yes	TRA Consumers 3.1
• Spray: Yes	TRA Consumers 3.1
Amount used, frequency and duration of use/exposure	
• Frequency of use over a year: Very Infrequent	TRA Consumers 3.1
• Amount of product used per application: = 73 g/event	TRA Consumers 3.1
• Exposure time: = 0.17 hr	TRA Consumers 3.1
Measures related to information and behavioural advice to consumers including personal protection and hygiene	
• Place of use: Indoor	TRA Consumers 3.1
Other conditions affecting consumers exposure	
• Inhalation factor: = 1	TRA Consumers 3.1

9.12.19.2. Exposure and risks for consumers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 206. Exposure concentrations and risks for consumers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.232 mg/m ³ (TRA Consumers 3.1)	RCR < 0.01
Inhalation, local, acute		
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.12.20. Consumer contributing scenario 19: Consumer contributing scenario - Lubricants, greases, and release products--Liquids (PC 24)

9.12.20.1. Conditions of use

Description of product/article/activity covered: Lubricants, greases, and release products—Liquids

Lubricants, greases, and release products--Liquids

	Method
Product (article) characteristics	
• Concentration of substance in mixture: = 0.1 g/g	TRA Consumers 3.1
• Exposure via Inhalation route: Yes	TRA Consumers 3.1
• Spray: No	TRA Consumers 3.1
Amount used, frequency and duration of use/exposure	
• Frequency of use over a year: Very Infrequent	TRA Consumers 3.1
• Amount of product used per application: = 2.2E3 g/event	TRA Consumers 3.1
• Exposure time: = 0.17 hr	TRA Consumers 3.1
Measures related to information and behavioural advice to consumers including personal protection and hygiene	
• Place of use: Indoor	TRA Consumers 3.1
Other conditions affecting consumers exposure	
• Inhalation factor: = 0.05 <i>It is assumed 5% of the product is released to air from the lubricant, greases and release products, during consumer use. Inhalation factor = 0.05.</i>	TRA Consumers 3.1

9.12.20.2. Exposure and risks for consumers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 207. Exposure concentrations and risks for consumers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	4.991 mg/m ³ (TRA Consumers 3.1)	RCR = 0.2
Inhalation, local, acute		
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.12.21. Consumer contributing scenario 20: Consumer contributing scenario - Washing and cleaning products (including solvent based products)--Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners) (PC 35)

9.12.21.1. Conditions of use

Description of product/article/activity covered:Washing and cleaning products (including solvent based products)--Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners)

Washing and cleaning products (including solvent based products)--Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners)

	Method
Product (article) characteristics	
• Concentration of substance in mixture: = 0.05 g/g	TRA Consumers 3.1
• Exposure via Inhalation route: Yes	TRA Consumers 3.1
• Spray: No	TRA Consumers 3.1
Amount used, frequency and duration of use/exposure	
• Frequency of use over a year: Occasional	TRA Consumers 3.1
• Amount of product used per application: = 27 g/event	TRA Consumers 3.1

	Method
• Exposure time: = 0.33 hr	TRA Consumers 3.1
Measures related to information and behavioural advice to consumers including personal protection and hygiene	
• Place of use: Indoor	TRA Consumers 3.1
Other conditions affecting consumers exposure	
• Inhalation factor: = 1	TRA Consumers 3.1

9.12.21.2. Exposure and risks for consumers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 208. Exposure concentrations and risks for consumers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	11.27 mg/m ³ (TRA Consumers 3.1)	RCR = 0.451
Inhalation, local, acute		
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.12.22. Consumer contributing scenario 21: Consumer contributing scenario - Washing and cleaning products (including solvent based products)--Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) (PC 35)

9.12.22.1. Conditions of use

Description of product/article/activity covered:Washing and cleaning products (including solvent based products)--Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)

Washing and cleaning products (including solvent based products)--Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)

	Method
Product (article) characteristics	
• Concentration of substance in mixture: = 0.015 g/g	TRA Consumers 3.1
• Exposure via Inhalation route: Yes	TRA Consumers 3.1
• Spray: Yes	TRA Consumers 3.1
Amount used, frequency and duration of use/exposure	
• Frequency of use over a year: Frequent	TRA Consumers 3.1
• Frequency of use over a day: = 1 events/day	TRA Consumers 3.1
• Amount of product used per application: = 35 g/event	TRA Consumers 3.1
• Exposure time: = 0.17 hr	TRA Consumers 3.1
Measures related to information and behavioural advice to consumers including personal protection and hygiene	
• Place of use: Indoor	TRA Consumers 3.1
Other conditions affecting consumers exposure	
• Inhalation factor: = 1	TRA Consumers 3.1

9.12.22.2. Exposure and risks for consumers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 209. Exposure concentrations and risks for consumers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	23.82 mg/m³ (TRA Consumers 3.1)	RCR = 0.953
Inhalation, local, acute		
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.12.23. Consumer contributing scenario 22: Consumer contributing scenario - Welding and soldering products, flux products--NOTE, n_assessment not in TRA (PC 38)

9.12.23.1. Conditions of use

Description of product/article/activity covered: Welding and soldering products, flux products

	Method
Product (article) characteristics	
• Concentration of substance in mixture: = 0.1 g/g	TRA Consumers 3.1
• Exposure via Inhalation route: Yes	TRA Consumers 3.1
• Spray: No	TRA Consumers 3.1
Amount used, frequency and duration of use/exposure	
• Frequency of use over a year: Occasional	TRA Consumers 3.1
• Amount of product used per application: = 12 g/event	TRA Consumers 3.1
• Exposure time: = 1 hr	TRA Consumers 3.1
Measures related to information and behavioural advice to consumers including personal protection and hygiene	
• Place of use: Indoor	TRA Consumers 3.1
Other conditions affecting consumers exposure	

	Method
• Inhalation factor: = 1	TRA Consumers 3.1

9.12.23.2. Exposure and risks for consumers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 210. Exposure concentrations and risks for consumers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	7.5 mg/m ³ (TRA Consumers 3.1)	RCR = 0.3
Inhalation, local, acute		
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.12.24. Consumer contributing scenario 23: Consumer contributing scenario - Washing and cleaning products (including solvent based products)--Laundry and dish washing products (PC 35)

9.12.24.1. Conditions of use

Washing and cleaning products (including solvent based products)--Laundry and dish washing products

	Method
Product (article) characteristics	
• Product/Article subcategory: Laundry and dish washing products	TRA Consumers 3.0
• Spray: No	TRA Consumers 3.0
• Concentration of substance in mixture: = 0.05 g/g	TRA Consumers 3.0
Amount used, frequency and duration of use/exposure	
• Amount of product used per application: = 15 g/event	TRA Consumers 3.0

	Method
• Exposure time: = 1 hr	TRA Consumers 3.0
• Frequency of use over a day: = 1 events/day	TRA Consumers 3.0

9.12.24.2. Exposure and risks for consumers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 211. Exposure concentrations and risks for consumers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	23.44 mg/m ³ (TRA Consumers 3.0)	RCR = 0.938
Inhalation, local, acute		
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.13. Exposure scenario 13: Consumer Use - Consumer Use - Agrochemical

Environment contributing scenario(s):	
Consumer Use - Agricultural use	ERC 8d, ERC 8a
Consumer contributing scenario(s):	
Consumer contributing scenario [edit]	PC 12
Consumer contributing scenario [edit]	PC 27

9.13.1. Environmental contributing scenario 1: Consumer Use - Agricultural use

9.13.1.1. Conditions of use

Amount used, frequency and duration of use (or from service life)
<ul style="list-style-type: none"> Daily wide dispersive use: ≤ 0.002 tonnes/day <i>Calculated from ESVOC SpERC 8.11b.v1 also known as ESVOC 27 calculation - $8.141465753 \cdot 0.1 \cdot 0.002$</i> Percentage of EU tonnage used at regional scale: = 10 %
Conditions and measures related to treatment of waste (including article waste)
<ul style="list-style-type: none"> Particular considerations on the waste treatment operations: No (low risk) (ERC based assessment demonstrating control of risk with default conditions. Low risk assumed for waste life stage. Waste disposal according to national/local legislation is sufficient.)
Other conditions affecting environmental exposure
<ul style="list-style-type: none"> Municipal STP: Yes [Effectiveness Water: 87.36%] Discharge rate of STP: $\geq 2E3$ m³/d Application of the STP sludge on agricultural soil: Yes Receiving surface water flow rate: $\geq 1.8E4$ m³/d

9.13.1.2. Releases

The local releases to the environment are reported in the following table.

Table 212. Local releases to the environment

Release	Release factor estimation method	Explanation / Justification
Water	Release factor (ESVOC SpERC 8.11b.v1)	Initial release factor: 1% Final release factor: 1% Local release rate: 0.016 kg/day Explanation / Justification: ESVOC SpERC 8.11b.v1 also known as ESVOC 27
Air	Release factor (ESVOC SpERC 8.11b.v1)	Initial release factor: 90% Final release factor: 90% Explanation / Justification: ESVOC SpERC 8.11b.v1 also known as ESVOC 27
Soil	Release factor (ESVOC SpERC 8.11b.v1)	Final release factor: 9% Explanation / Justification: ESVOC SpERC 8.11b.v1 also known as ESVOC 27

9.13.1.3. Exposure and risks for the environment and man via the environment

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 213. Exposure concentrations and risks for the environment

Protection target	Exposure concentration	Risk characterisation
Freshwater	Local PEC: 0.181 mg/L	RCR = 0.059
Sediment (freshwater)	Local PEC: 0.672 mg/kg dw	RCR = 0.059
Marine water	Local PEC: 0.017 mg/L	RCR = 0.055
Sediment (marine water)	Local PEC: 0.063 mg/kg dw	RCR = 0.055
Predator (freshwater)		
Predator (marine water)		
Top predator (marine water)		
Sewage treatment plant	Local PEC: 0.001 mg/L	RCR < 0.01
Air		
Agricultural soil	Local PEC: 0.008 mg/kg dw	RCR = 0.016

Protection target	Exposure concentration	Risk characterisation
Predator (terrestrial)		

Table 214. Contribution to oral intake for man via the environment from local contribution

Type of food	Estimated daily dose	Concentration in food
Drinking water	0.005 mg/kg bw/day	0.181 mg/L
Fish	9.382E-4 mg/kg bw/day	0.571 mg/kg ww
Leaf crops	5.788E-4 mg/kg bw/day	0.034 mg/kg ww
Root crops	2.539E-4 mg/kg bw/day	0.046 mg/kg ww
Meat	4.238E-8 mg/kg bw/day	9.857E-6 mg/kg ww
Milk	7.899E-7 mg/kg bw/day	9.857E-5 mg/kg ww

9.13.2. Consumer contributing scenario 1: Consumer contributing scenario [edit] (PC 12)

9.13.2.1. Conditions of use

	Method
Product (article) characteristics	
• Product/Article subcategory: Lawn and garden preparations	TRA Consumers 3.0
• Concentration of substance in mixture: = 0.1 g/g	TRA Consumers 3.0
• Negligible release to air expected: Yes	TRA Consumers 3.0

9.13.2.2. Exposure and risks for consumers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 215. Exposure concentrations and risks for consumers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0 mg/m ³ (TRA Consumers 3.0)	RCR < 0.01
Inhalation, local, acute		
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.13.3. Consumer contributing scenario 2: Consumer contributing scenario [edit] (PC 27)

9.13.3.1. Conditions of use

Description of product/article/activity covered:1

	Method
Product (article) characteristics	
• Concentration of substance in mixture: = 0.1 g/g	TRA Consumers 3.1
• Exposure via Inhalation route: Yes	TRA Consumers 3.1
• Spray: No	TRA Consumers 3.1
Amount used, frequency and duration of use/exposure	
• Frequency of use over a year: Frequent	TRA Consumers 3.1
• Frequency of use over a day: = 1 events/day	TRA Consumers 3.1
• Amount of product used per application: = 0 g/event	TRA Consumers 3.1
• Exposure time: = 2 hr	TRA Consumers 3.1
Measures related to information and behavioural advice to consumers including personal protection and hygiene	
• Place of use: Indoor	TRA Consumers 3.1
Other conditions affecting consumers exposure	
• Inhalation factor: = 1	TRA Consumers 3.1

9.13.3.2. Exposure and risks for consumers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 216. Exposure concentrations and risks for consumers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0 mg/m ³ (TRA Consumers 3.1)	RCR < 0.01
Inhalation, local, acute		
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.14. Exposure scenario 14: Consumer Use - Consumer Use - pH adjustment of textile dyes

Environment contributing scenario(s):	
Consumer Use - pH adjustment of textile dyes	ERC 9a
Consumer contributing scenario(s):	
Consumer contributing scenario [edit]	PC 34

9.14.1. Environmental contributing scenario 1: Consumer Use - pH adjustment of textile dyes

9.14.1.1. Conditions of use

Amount used, frequency and duration of use (or from service life)
• Daily wide dispersive use: <= 0.002 tonnes/day
• Percentage of EU tonnage used at regional scale: = 10 %
Conditions and measures related to treatment of waste (including article waste)
• Particular considerations on the waste treatment operations: No (low risk) (ERC based assessment demonstrating control of risk with default conditions. Low risk assumed for waste life stage. Waste disposal according to national/local legislation is sufficient.)
Other conditions affecting environmental exposure
• Municipal STP: Yes [Effectiveness Water: 87.36%]
• Discharge rate of STP: >= 2E3 m3/d
• Application of the STP sludge on agricultural soil: Yes
• Receiving surface water flow rate: >= 1.8E4 m3/d

9.14.1.2. Releases

The local releases to the environment are reported in the following table.

Table 217. Local releases to the environment

Release	Release factor estimation method	Explanation / Justification
Water	ERC based	Initial release factor: 5% Final release factor: 5%

Release	Release factor estimation method	Explanation / Justification
		Local release rate: 0.082 kg/day
Air	ERC based	Initial release factor: 5% Final release factor: 5%
Soil	ERC based	Final release factor: 0%

9.14.1.3. Exposure and risks for the environment and man via the environment

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 218. Exposure concentrations and risks for the environment

Protection target	Exposure concentration	Risk characterisation
Freshwater	Local PEC: 0.181 mg/L	RCR = 0.059
Sediment (freshwater)	Local PEC: 0.673 mg/kg dw	RCR = 0.059
Marine water	Local PEC: 0.017 mg/L	RCR = 0.056
Sediment (marine water)	Local PEC: 0.063 mg/kg dw	RCR = 0.056
Predator (freshwater)		
Predator (marine water)		
Top predator (marine water)		
Sewage treatment plant	Local PEC: 0.005 mg/L	RCR < 0.01
Air		
Agricultural soil	Local PEC: 0.008 mg/kg dw	RCR = 0.016
Predator (terrestrial)		

Table 219. Contribution to oral intake for man via the environment from local contribution

Type of food	Estimated daily dose	Concentration in food
Drinking water	0.005 mg/kg bw/day	0.181 mg/L
Fish	9.404E-4 mg/kg bw/day	0.572 mg/kg ww
Leaf crops	5.788E-4 mg/kg bw/day	0.034 mg/kg ww
Root crops	2.539E-4 mg/kg bw/day	0.046 mg/kg ww

Type of food	Estimated daily dose	Concentration in food
Meat	4.246E-8 mg/kg bw/day	9.875E-6 mg/kg ww
Milk	7.914E-7 mg/kg bw/day	9.875E-5 mg/kg ww

9.14.2. Consumer contributing scenario 1: Consumer contributing scenario [edit] (PC 34)

9.14.2.1. Conditions of use

Description of product/article/activity covered: pH adjustment of textile dyes

	Method
Product (article) characteristics	
• Concentration of substance in mixture: = 0.1 g/g	TRA Consumers 3.1
• Exposure via Inhalation route: Yes	TRA Consumers 3.1
• Spray: No	TRA Consumers 3.1
Amount used, frequency and duration of use/exposure	
• Frequency of use over a year: Occasional	TRA Consumers 3.1
• Amount of product used per application: = 20 g/event	TRA Consumers 3.1
• Exposure time: = 1 hr	TRA Consumers 3.1
Measures related to information and behavioural advice to consumers including personal protection and hygiene	
• Place of use: Indoor	TRA Consumers 3.1
Other conditions affecting consumers exposure	
• Inhalation factor: = 1	TRA Consumers 3.1

9.14.2.2. Exposure and risks for consumers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 220. Exposure concentrations and risks for consumers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	12.5 mg/m ³ (TRA Consumers 3.1)	RCR = 0.5
Inhalation, local, acute		

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Dermal, local, long-term		Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.15. Exposure scenario 15: Use at industrial site - Use at industrial site - Use in oil field drilling

Sector of use:

SU 2b, Offshore industries

Environment contributing scenario(s):	
Use at industrial site - Use in oil field drilling	ERC 4
Worker contributing scenario(s):	
contributing scenarios 55 and 137	PROC 2
contributing scenario 116	PROC 3
contributing scenario 116	PROC 4
contributing scenario 117	PROC 8a
contributing scenario 14	PROC 8b
contributing scenario 45	PROC 8b
contributing scenario 118	PROC 4
contributing scenario 119	PROC 4
contributing scenario 121	PROC 3
contributing scenario 2	PROC 3
contributing scenario 15	PROC 1
contributing scenario 9	PROC 8a
contributing scenario 16	PROC 4
contributing scenario 39	PROC 8a
contributing scenario 55	PROC 1

9.15.1. Environmental contributing scenario 1: Use at industrial site - Use in oil field drilling

9.15.1.1. Conditions of use

Amount used, frequency and duration of use (or from service life)
<ul style="list-style-type: none"> Daily use at site: ≤ 5 tonnes/day <p>ESVOC 4.5a.v1 also known as ESVOC 11</p>

<ul style="list-style-type: none"> • Annual use at a site: ≤ 150 tonnes/year <p><i>ESVOC 4.5a.v1 also known as ESVOC 11</i></p>
<ul style="list-style-type: none"> • Percentage of EU tonnage used at regional scale: = 100 %
Conditions and measures related to sewage treatment plant
<ul style="list-style-type: none"> • Municipal STP: Yes [Effectiveness Water: 87.36%]
<ul style="list-style-type: none"> • Discharge rate of STP: $\geq 2E3$ m³/d
<ul style="list-style-type: none"> • Application of the STP sludge on agricultural soil: Yes
Conditions and measures related to treatment of waste (including article waste)
<ul style="list-style-type: none"> • Particular considerations on the waste treatment operations: No (low risk) (ERC based assessment demonstrating control of risk with default conditions. Low risk assumed for waste life stage. Waste disposal according to national/local legislation is sufficient.)
Other conditions affecting environmental exposure
<ul style="list-style-type: none"> • Receiving surface water flow rate: $\geq 1.8E4$ m³/d

9.15.1.2. Releases

The local releases to the environment are reported in the following table.

Table 221. Local releases to the environment

Release	Release factor estimation method	Explanation / Justification
Water	Release factor (ESVOC 4.5a.v1)	<p>Initial release factor: 7%</p> <p>Final release factor: 7%</p> <p>Local release rate: 350 kg/day</p> <p>Explanation / Justification: ESVOC 4.5a.v1 also known as ESVOC 11</p>
Air	Release factor (ESVOC 4.5a.v1)	<p>Initial release factor: 1%</p> <p>Final release factor: 1%</p> <p>Local release rate: 50 kg/day</p> <p>Explanation / Justification: ESVOC 4.5a.v1 also known as ESVOC 11</p>
Soil	Release factor	<p>Final release factor: 0%</p> <p>Explanation / Justification: ESVOC 4.5a.v1 also known as</p>

Release	Release factor estimation method	Explanation / Justification
	(ESVOC 4.5a.v1)	ESVOC 11

9.15.1.3. Exposure and risks for the environment and man via the environment

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 222. Exposure concentrations and risks for the environment

Protection target	Exposure concentration	Risk characterisation
Freshwater	Local PEC: 2.393 mg/L	RCR = 0.783
Sediment (freshwater)	Local PEC: 8.891 mg/kg dw	RCR = 0.783
Marine water	Local PEC: 0.238 mg/L	RCR = 0.779
Sediment (marine water)	Local PEC: 0.885 mg/kg dw	RCR = 0.779
Predator (freshwater)		
Predator (marine water)		
Top predator (marine water)		
Sewage treatment plant	Local PEC: 22.12 mg/L	RCR = 0.26
Air		
Agricultural soil	Local PEC: 0.052 mg/kg dw	RCR = 0.111
Predator (terrestrial)		

Table 223. Contribution to oral intake for man via the environment from local contribution

Type of food	Estimated daily dose	Concentration in food
Drinking water	0.01 mg/kg bw/day	0.363 mg/L
Fish	0.002 mg/kg bw/day	1.145 mg/kg ww
Leaf crops	0.001 mg/kg bw/day	0.06 mg/kg ww
Root crops	5.87E-4 mg/kg bw/day	0.107 mg/kg ww
Meat	8.291E-8 mg/kg bw/day	1.928E-5 mg/kg ww
Milk	1.545E-6 mg/kg bw/day	1.928E-4 mg/kg ww

9.15.2. Worker contributing scenario 1: contributing scenarios 55 and 137 (PROC 2)

9.15.2.1. Conditions of use

contributing scenario 55: Batch process contributing scenario 137: With occasional controlled exposure

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Closed continuous process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Local exhaust ventilation (for dermal): yes [Effectiveness Dermal: 90%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands face (480 cm ²)	TRA Workers 3.0

9.15.2.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 224. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1.251 mg/m ³ (TRA Workers 3.0)	RCR = 0.05
Inhalation, local, acute	5.004 mg/m ³ (TRA Workers 3.0)	RCR = 0.2
Dermal, local, long-term	0.02 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.15.3. Worker contributing scenario 2: contributing scenario 116 (PROC 3)

9.15.3.1. Conditions of use

contributing scenario 116: Drill floor operations

	Method
Product (article) characteristics	
• Concentration of substance in mixture: 5-25%	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 4 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Good general ventilation (3-5 air changes per hour)	TRA Workers 3.0
• Containment: Closed batch process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Local exhaust ventilation (for dermal): no [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0

	Method
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: One hand face only (240 cm ²)	TRA Workers 3.0

9.15.3.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 225. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.631 mg/m ³ (TRA Workers 3.0)	RCR = 0.025
Inhalation, local, acute	4.204 mg/m ³ (TRA Workers 3.0)	RCR = 0.168
Dermal, local, long-term	0.072 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.15.4. Worker contributing scenario 3: contributing scenario 116 (PROC 4)

9.15.4.1. Conditions of use

contributing scenario 116: Drill floor operations

	Method
Product (article) characteristics	
• Concentration of substance in mixture: 5-25%	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 4 hours	TRA Workers 3.0
Technical and organisational conditions and measures	

	Method
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Outdoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands face (480 cm ²)	TRA Workers 3.0

9.15.4.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 226. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1.261 mg/m ³ (TRA Workers 3.0)	RCR = 0.05
Inhalation, local, acute	8.407 mg/m ³ (TRA Workers 3.0)	RCR = 0.336
Dermal, local, long-term	0.36 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.15.5. Worker contributing scenario 4: contributing scenario 117 (PROC 8a)

9.15.5.1. Conditions of use

contributing scenario 117: Operation of solids filtering equipment

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Local exhaust ventilation (for dermal): yes [Effectiveness Dermal: 90%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands (960 cm ²)	TRA Workers 3.0

9.15.5.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 227. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.25 mg/m³ (TRA Workers 3.0)	RCR = 0.01
Inhalation, local, acute	5.004 mg/m³ (TRA Workers 3.0)	RCR = 0.2
Dermal, local, long-term	0.02 mg/cm² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.15.6. Worker contributing scenario 5: contributing scenario 14 (PROC 8b)

9.15.6.1. Conditions of use

contributing scenario 14: Bulk transfer

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 95%]	TRA Workers 3.0
• Local exhaust ventilation (for dermal): yes [Effectiveness Dermal: 95%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0

	Method
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands (960 cm ²)	TRA Workers 3.0

9.15.6.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 228. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.626 mg/m ³ (TRA Workers 3.0)	RCR = 0.025
Inhalation, local, acute	12.51 mg/m ³ (TRA Workers 3.0)	RCR = 0.5
Dermal, local, long-term	0.01 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.15.7. Worker contributing scenario 6: contributing scenario 45 (PROC 8b)

9.15.7.1. Conditions of use

contributing scenario 45: Filling / preparation of equipment from drums or containers.

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	

	Method
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 95%] <i>Drum pumped reduction and increased local ventilation included</i>	TRA Workers 3.0
• Local exhaust ventilation (for dermal): no [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374) [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands (960 cm ²)	TRA Workers 3.0

9.15.7.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 229. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.626 mg/m³ (TRA Workers 3.0)	RCR = 0.025
Inhalation, local, acute	12.51 mg/m³ (TRA Workers 3.0)	RCR = 0.5
Dermal, local, long-term	0.04 mg/cm² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.15.8. Worker contributing scenario 7: contributing scenario 118 (PROC 4)

9.15.8.1. Conditions of use

Operation of solids filtering equipment - vapour exposures

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Local exhaust ventilation (for dermal): yes [Effectiveness Dermal: 90%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands face (480 cm ²)	TRA Workers 3.0

9.15.8.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 230. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	5.004 mg/m ³ (TRA Workers 3.0)	RCR = 0.2

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, acute	20.02 mg/m ³ (TRA Workers 3.0)	RCR = 0.801
Dermal, local, long-term	0.1 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.15.9. Worker contributing scenario 8: contributing scenario 119 (PROC 4)

9.15.9.1. Conditions of use

contributing scenario 119: Operation of solids filtering equipment - aerosol exposures

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Local exhaust ventilation (for dermal): yes [Effectiveness Dermal: 90%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0

	Method
• Process temperature (for liquid): $\leq 40\text{ }^{\circ}\text{C}$	TRA Workers 3.0
• Skin surface potentially exposed: Two hands face (480 cm ²)	TRA Workers 3.0

9.15.9.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 231. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	5.004 mg/m ³ (TRA Workers 3.0)	RCR = 0.2
Inhalation, local, acute	20.02 mg/m ³ (TRA Workers 3.0)	RCR = 0.801
Dermal, local, long-term	0.1 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.15.10. Worker contributing scenario 9: contributing scenario 121 (PROC 3)

9.15.10.1. Conditions of use

contributing scenario 121: Treatment and disposal of filtered solids

	Method
Product (article) characteristics	
• Concentration of substance in mixture: >25%	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 4 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Closed batch process with occasional controlled exposure	TRA Workers 3.0

	Method
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%]	TRA Workers 3.0
• Local exhaust ventilation (for dermal): yes [Effectiveness Dermal: 90%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: One hand face only (240 cm ²)	TRA Workers 3.0

9.15.10.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 232. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1.501 mg/m ³ (TRA Workers 3.0)	RCR = 0.06
Inhalation, local, acute	10.01 mg/m ³ (TRA Workers 3.0)	RCR = 0.4
Dermal, local, long-term	0.012 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.15.11. Worker contributing scenario 10: contributing scenario 2 (PROC 3)

9.15.11.1. Conditions of use

contributing scenario 2 - Process sampling

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 15 minutes	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Closed batch process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%] <i>Equivalent to sampling system efficiency and general ventilation</i>	TRA Workers 3.0
• Local exhaust ventilation (for dermal): no [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: One hand face only (240 cm ²)	TRA Workers 3.0

9.15.11.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 233. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
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Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.25 mg/m³ (TRA Workers 3.0)	RCR = 0.01
Inhalation, local, acute	10.01 mg/m³ (TRA Workers 3.0)	RCR = 0.4
Dermal, local, long-term	0.02 mg/cm² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.15.12. Worker contributing scenario 11: contributing scenario 15 (PROC 1)

9.15.12.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Closed system (minimal contact during routine operations)	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0

	Method
• Skin surface potentially exposed: One hand face only (240 cm ²)	TRA Workers 3.0

9.15.12.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 234. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.025 mg/m ³ (TRA Workers 3.0)	RCR < 0.01
Inhalation, local, acute	0.1 mg/m ³ (TRA Workers 3.0)	RCR < 0.01
Dermal, local, long-term	0.01 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.15.13. Worker contributing scenario 12: contributing scenario 9 (PROC 8a)

9.15.13.1. Conditions of use

contributing scenario 9: Pouring from small containers

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 15 minutes	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Good general ventilation (3-5 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0

	Method
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374) [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 20) [Effectiveness Inhal: 95%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands (960 cm ²)	TRA Workers 3.0

9.15.13.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 235. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.438 mg/m ³ (TRA Workers 3.0)	RCR = 0.018
Inhalation, local, acute	17.52 mg/m ³ (TRA Workers 3.0)	RCR = 0.701
Dermal, local, long-term	0.02 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.15.14. Worker contributing scenario 13: contributing scenario 16 (PROC 4)

9.15.14.1. Conditions of use

contributing scenario 16: General exposures (open systems)

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 4 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Good general ventilation (3-5 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374) [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands face (480 cm ²)	TRA Workers 3.0

9.15.14.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 236. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	2.102 mg/m³ (TRA Workers 3.0)	RCR = 0.084
Inhalation, local, acute	14.01 mg/m³ (TRA Workers 3.0)	RCR = 0.56
Dermal, local, long-term	0.12 mg/cm² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.15.15. Worker contributing scenario 14: contributing scenario 39 (PROC 8a)

9.15.15.1. Conditions of use

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Good general ventilation (3-5 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374) [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 20) [Effectiveness Inhal: 95%]	TRA Workers 3.0
Other conditions affecting workers exposure	

	Method
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): <= 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands (960 cm ²)	TRA Workers 3.0

9.15.15.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 237. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.876 mg/m³ (TRA Workers 3.0)	RCR = 0.035
Inhalation, local, acute	17.52 mg/m³ (TRA Workers 3.0)	RCR = 0.701
Dermal, local, long-term	0.04 mg/cm² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.15.16. Worker contributing scenario 15: contributing scenario 55 (PROC 1)

9.15.16.1. Conditions of use

contributing scenario 55: batch process

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0

	Method
• Containment: Closed system (minimal contact during routine operations)	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: One hand face only (240 cm ²)	TRA Workers 3.0

9.15.16.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 238. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.025 mg/m³ (TRA Workers 3.0)	RCR < 0.01
Inhalation, local, acute	0.1 mg/m³ (TRA Workers 3.0)	RCR < 0.01
Dermal, local, long-term	0.01 mg/cm² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.16. Exposure scenario 16: Use by professional worker - Use by professional worker - Agrochemical uses

Sector of use:

SU 10, Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

Environment contributing scenario(s):	
Use by professional worker - Agrochemical uses	ERC 8d
Worker contributing scenario(s):	
contributing scenario 67	PROC 1
contributing scenarios 67 and 137	PROC 2
contributing scenario 23	PROC 4
contributing scenarios 26 and 82	PROC 8a
contributing scenario 22	PROC 8b
contributing scenario 24	PROC 11
contributing scenario 27	PROC 13
contributing scenarios 28 and 82	PROC 8a

9.16.1. Environmental contributing scenario 1: Use by professional worker - Agrochemical uses

9.16.1.1. Conditions of use

Amount used, frequency and duration of use (or from service life)
<ul style="list-style-type: none"> Daily wide dispersive use: ≤ 0.002 tonnes/day <p><i>Calculated following SpERC ESVOC 8.11a.v1. Calculated by: $8.141466 \cdot 0.1 \cdot 0.002$</i></p>
<ul style="list-style-type: none"> Percentage of EU tonnage used at regional scale: = 10 %
Conditions and measures related to sewage treatment plant
<ul style="list-style-type: none"> Municipal STP: Yes [Effectiveness Water: 87.36%]
<ul style="list-style-type: none"> Discharge rate of STP: $\geq 2E3$ m³/d
<ul style="list-style-type: none"> Application of the STP sludge on agricultural soil: Yes
Conditions and measures related to treatment of waste (including article waste)
<ul style="list-style-type: none"> Particular considerations on the waste treatment operations: No (low risk) (ERC based assessment)

demonstrating control of risk with default conditions. Low risk assumed for waste life stage. Waste disposal according to national/local legislation is sufficient.)

Other conditions affecting environmental exposure

- Receiving surface water flow rate: $\geq 1.8E4$ m³/d

9.16.1.2. Releases

The local releases to the environment are reported in the following table.

Table 239. Local releases to the environment

Release	Release factor estimation method	Explanation / Justification
Water	Release factor (ESVOC 8.11a.v1)	Initial release factor: 1% Final release factor: 1% Local release rate: 0.016 kg/day Explanation / Justification: ESVOC 8.11a.v1 also known as ESVOC 26
Air	Release factor (ESVOC 8.11a.v1)	Initial release factor: 90% Final release factor: 90% Explanation / Justification: ESVOC 8.11a.v1 also known as ESVOC 26
Soil	Release factor (ESVOC 8.11a.v1)	Final release factor: 9% Explanation / Justification: ESVOC 8.11a.v1 also known as ESVOC 26

9.16.1.3. Exposure and risks for the environment and man via the environment

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 240. Exposure concentrations and risks for the environment

Protection target	Exposure concentration	Risk characterisation
Freshwater	Local PEC: 0.181 mg/L	RCR = 0.059
Sediment (freshwater)	Local PEC: 0.672 mg/kg dw	RCR = 0.059
Marine water	Local PEC: 0.017 mg/L	RCR = 0.055
Sediment (marine water)	Local PEC: 0.063 mg/kg dw	RCR = 0.055

Protection target	Exposure concentration	Risk characterisation
Predator (freshwater)		
Predator (marine water)		
Top predator (marine water)		
Sewage treatment plant	Local PEC: 0.001 mg/L	RCR < 0.01
Air		
Agricultural soil	Local PEC: 0.008 mg/kg dw	RCR = 0.016
Predator (terrestrial)		

Table 241. Contribution to oral intake for man via the environment from local contribution

Type of food	Estimated daily dose	Concentration in food
Drinking water	0.005 mg/kg bw/day	0.181 mg/L
Fish	9.382E-4 mg/kg bw/day	0.571 mg/kg ww
Leaf crops	5.788E-4 mg/kg bw/day	0.034 mg/kg ww
Root crops	2.539E-4 mg/kg bw/day	0.046 mg/kg ww
Meat	4.238E-8 mg/kg bw/day	9.857E-6 mg/kg ww
Milk	7.899E-7 mg/kg bw/day	9.857E-5 mg/kg ww

9.16.2. Worker contributing scenario 1: contributing scenario 67 (PROC 1)

9.16.2.1. Conditions of use

contributing scenario 67: Storage

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 8 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Closed system (minimal contact during routine operations)	TRA Workers 3.0

	Method
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: No [Effectiveness Inhal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: One hand face only (240 cm ²)	TRA Workers 3.0

9.16.2.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 242. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.025 mg/m ³ (TRA Workers 3.0)	RCR < 0.01
Inhalation, local, acute	0.1 mg/m ³ (TRA Workers 3.0)	RCR < 0.01
Dermal, local, long-term	0.01 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.16.3. Worker contributing scenario 2: contributing scenarios 67 and 137 (PROC 2)

9.16.3.1. Conditions of use

contributing scenario 67: Storage contributing scenario 137: With occasional controlled exposure

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 4 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• Containment: Closed continuous process with occasional controlled exposure	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Outdoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands face (480 cm ²)	TRA Workers 3.0

9.16.3.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 243. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	2.102 mg/m ³ (TRA Workers 3.0)	RCR = 0.084
Inhalation, local, acute	14.01 mg/m ³ (TRA Workers 3.0)	RCR = 0.56

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Dermal, local, long-term	0.12 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.16.4. Worker contributing scenario 3: contributing scenario 23 (PROC 4)

9.16.4.1. Conditions of use

contributing scenario 23: Mixing in containers

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374) [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 20) [Effectiveness Inhal: 95%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Outdoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands face (480 cm ²)	TRA Workers 3.0

9.16.4.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 244. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.876 mg/m³ (TRA Workers 3.0)	RCR = 0.035
Inhalation, local, acute	17.52 mg/m³ (TRA Workers 3.0)	RCR = 0.701
Dermal, local, long-term	0.04 mg/cm² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.16.5. Worker contributing scenario 4: contributing scenarios 26 and 82 (PROC 8a)

9.16.5.1. Conditions of use

contributing scenario 26: Clean down and maintenance contributing scenario 82: Non-dedicated facility

	Method
Product (article) characteristics	
• Concentration of substance in mixture: 1-5%	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 4 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 80%] <i>Drain down system prior to equipment break-in or maintenance equivalent to 80 % reduction from LEV</i>	TRA Workers 3.0
• Local exhaust ventilation (for dermal): no [Effectiveness Dermal: 0%]	TRA Workers 3.0

	Method
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands (960 cm ²)	TRA Workers 3.0

9.16.5.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 245. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.6 mg/m ³ (TRA Workers 3.0)	RCR = 0.024
Inhalation, local, acute	4.003 mg/m ³ (TRA Workers 3.0)	RCR = 0.16
Dermal, local, long-term	0.12 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.16.6. Worker contributing scenario 5: contributing scenario 22 (PROC 8b)

9.16.6.1. Conditions of use

contributing scenario 22: Transfer from/pouring from containers

	Method
Product (article) characteristics	
• Concentration of substance in mixture: Substance as such	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 4 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: Semi-closed process with occasional controlled exposure	TRA Workers 3.0
• Local exhaust ventilation: yes [Effectiveness Inhal: 90%] <i>Equivalent to use of drum pumps</i>	TRA Workers 3.0
• Local exhaust ventilation (for dermal): no [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374) [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands (960 cm ²)	TRA Workers 3.0

9.16.6.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 246. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.751 mg/m³ (TRA Workers 3.0)	RCR = 0.03
Inhalation, local, acute	5.004 mg/m³ (TRA Workers 3.0)	RCR = 0.2
Dermal, local, long-term	0.12 mg/cm² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.16.7. Worker contributing scenario 6: contributing scenario 24 (PROC 11)

9.16.7.1. Conditions of use

contributing scenario 24: Spraying/fogging by manual application

	Method
Product (article) characteristics	
• Concentration of substance in mixture: <1%	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 4 hours	TRA Workers 3.0
Technical and organisational conditions and measures	
• Containment: No	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: Yes (chemically resistant gloves conforming to EN374 with basic employee training) [Effectiveness Dermal: 90%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 20) [Effectiveness Inhal: 95%]	TRA Workers 3.0
Other conditions affecting workers exposure	

	Method
• Place of use: Outdoor	TRA Workers 3.0
• Process temperature (for liquid): <= 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands and upper wrists (1500 cm ²)	TRA Workers 3.0

9.16.7.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 247. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	2.627 mg/m³ (TRA Workers 3.0) Additional data not used for RCR: 2.252 mg/m ³ (TRA Workers 3.0)	RCR = 0.105
Inhalation, local, acute	17.52 mg/m³ (TRA Workers 3.0) Additional data not used for RCR: 15.01 mg/m ³ (TRA Workers 3.0)	RCR = 0.701
Dermal, local, long-term	0.03 mg/cm² (TRA Workers 3.0) Additional data not used for RCR: 0.12 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.16.8. Worker contributing scenario 7: contributing scenario 27 (PROC 13)

9.16.8.1. Conditions of use

contributing scenario 27: Ad hoc manual application via trigger sprays, dipping, etc.

	Method
Product (article) characteristics	
• Concentration of substance in mixture: 1-5%	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation (1-3 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands face (480 cm ²)	TRA Workers 3.0

9.16.8.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 248. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	1.001 mg/m³ (TRA Workers 3.0)	RCR = 0.04
Inhalation, local, acute	20.02 mg/m³ (TRA Workers 3.0)	RCR = 0.801
Dermal, local, long-term	0.08 mg/cm² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP

9.16.9. Worker contributing scenario 8: contributing scenarios 28 and 82 (PROC 8a)

9.16.9.1. Conditions of use

contributing scenario 28: Disposal of wastes contributing scenario 82: Non-dedicated facility

	Method
Product (article) characteristics	
• Concentration of substance in mixture: 1-5%	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: < 1 hour	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Good general ventilation (3-5 air changes per hour)	TRA Workers 3.0
• Containment: No	TRA Workers 3.0
• Local exhaust ventilation: no [Effectiveness Inhal: 0%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal Protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
• Respiratory Protection: Yes (Respirator with APF of 10) [Effectiveness Inhal: 90%]	TRA Workers 3.0

	Method
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Process temperature (for liquid): ≤ 40 °C	TRA Workers 3.0
• Skin surface potentially exposed: Two hands (960 cm ²)	TRA Workers 3.0

9.16.9.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 249. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk characterisation
Inhalation, local, long-term	0.701 mg/m ³ (TRA Workers 3.0)	RCR = 0.028
Inhalation, local, acute	14.01 mg/m ³ (TRA Workers 3.0)	RCR = 0.56
Dermal, local, long-term	0.04 mg/cm ² (TRA Workers 3.0)	Qualitative (see below)
Dermal, local, acute		Qualitative (see below)
Eye, local		Qualitative (see below)

Conclusion on risk characterisation

Medium hazard (no threshold derived); Acetic acid is classified as corrosive under CLP