Safety Data Sheet
Conforms to Regulation (EC) No. 1907/2006 (REACH), Article 31, Annex II, as amended by Commission Regulation (EU) 2020/878
AQUA-PUR BASIC RAPID
Date of first edition: 10/27/2022
Safety Data Sheet dated 27/10/2022
version 2

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Mixture identification:

Trade name: AQUA-PUR BASIC RAPID

Trade code: S100B0304 .031

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use: Paint

Uses advised against: Data not available.

1.3. Details of the supplier of the safety data sheet

Company: KERAKOLL S.p.A.
Via dell'Artigianato, 9
41049 Sassuolo (MODENA) - ITALY
Tel.+39 0536 816511 Fax. +39 0536816581
safety@kerakoll.com

1.4. Emergency telephone number

European emergency phone number 112

Ireland Poison information centre: 01 809 2166 (Daily 8am-10pm) In case of emergency call 999 or 112

Malta In case of emergency call: +356 2395 2000 (24h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) n. 1272/2008 (CLP)

0 The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).

Special Provisions:

EUH210 Safety data sheet available on request.

Dir. 2004/42/EC (VOC directive)

Interior/exterior trim varnishes and woodstains, including opaque woodstains

EU limit value for this product (cat. A/e): 130 g/l

This product contains max 80.81 g/l VOC.

Special provisions according to Annex XVII of REACH and subsequent amendments:

None.

2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration >= 0.1%

Other Hazards: No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Mixture identification: AQUA-PUR BASIC RAPID

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Numb.	Classification	Registration Number
2,5-4,9 %	2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve	CAS:111-76-2 EC:203-905-0 Index:603-014-00-0	Acute Tox. 4, H332 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Acute Toxicity Estimate: ATE - Oral: 1200mg/kg bw	01-2119475108-36
2,5-4,9 %	3-butoxypropan-2-ol; propylene glycol monobutyl ether	CAS:5131-66-8 EC:225-878-4 Index:603-052-00-8	Eye Irrit. 2, H319; Skin Irrit. 2, H315	01-2119475527-28

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Wash with plenty of water and soap.

In case of eyes contact:

Wash immediately with water.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and label hazardous.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

4.2. Most important symptoms and effects, both acute and delayed

N.A.

4.3. Indication of any immediate medical attention and special treatment needed

N.A.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO_2).

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand

Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

Recommendation(s)

None in particular

Industrial sector specific solutions:

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Community Occupational Exposure Limits (OEL)

Component	OEL Type	Country	Ceiling	Long Term mg/m3	Long Term ppm	Short Term mg/m3	Short Term ppm	Behaviour	Notes
2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve	EU	NNN		98	20	246	50		Skin
	NATIONAL	AUSTRIA		98.000	20.000	200.000	40.000		
	NATIONAL	BELGIUM		98.000	20.000	246.000	50.000		
	NATIONAL	CANADA			20.000				Ontario
	NATIONAL	CANADA		97.000	20.000				Quebec
	NATIONAL	DENMARK		98.000	20.000	196.000	40.000		
	NATIONAL	FINLAND		98.000	20.000	250.000	50.000		
	NATIONAL	FRANCE		49.000	10.000	246.000	50.000		
	NATIONAL	GERMANY		49.000	10.000	196.000	40.000		AGS
	NATIONAL	GERMANY		49.000	10.000	98.000	20.000		DFG
	NATIONAL	HUNGARY		98.000		246.000			
	NATIONAL	IRELAND		98.000	20.000	246.000	50.000		
	NATIONAL	ISRAEL		97.000	20.000				
	NATIONAL	ITALY		98.000	20.000	246.000	50.000		Cute
	NATIONAL	LATVIA		98.000	20.000	246.000	50.000		
	NATIONAL	POLAND		98.000		200.000			
	NATIONAL	ROMANIA		98.000	20.000	246.000	50.000		
	NATIONAL	SPAIN		98.000	20.000	245.000	50.000		
	NATIONAL	SWEDEN		50.000	10.000	246.000	50.000		
	NATIONAL	SWITZERLAND		49.000	10.000	98.000	20.000		
	NATIONAL	NETHERLANDS		100.000		246.000			
	NATIONAL	TURKEY		98.000	20.000	246.000	50.000		
	NATIONAL	UNITED STATES OF AMERICA		24.000	5.000				NIOSH
	NATIONAL	UNITED STATES OF AMERICA		240.000	50.000				OSHA
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND		123.000	25.000	246.000	50.000		
	NATIONAL	BULGARIA		98.000	20.000	246.000	50.000		

	NATIONAL	CZECHIA	100.000		200.000		
	NATIONAL	CHILE	85.000	18.000			
	NATIONAL	CROATIA	98.000	20.000	246.000	50.000	
	NATIONAL	ESTONIA	98.000	20.000	246.000	50.000	
	NATIONAL	GREECE	120.000	25.000			
	NATIONAL	INDONESIA		20.000			
	NATIONAL	ICELAND	100.000	20.000	246.000	50.000	
	NATIONAL	LITHUANIA	50.000	10.000	100.000	20.000	
	NATIONAL	NORWAY	50.000	10.000			
	NATIONAL	PORTUGAL		20.000			
	NATIONAL	RUSSIAN FEDERATION	5.000				
	NATIONAL	SLOVAKIA	98.000	20.000	946.000	50.000	
	NATIONAL	SLOVENIA	98.000	20.000	946.000	50.000	
	ACGIH	NNN		20.000			A3, BEI - Eye and URT irr
	EU	NNN	98.000	20.000	246.000	50.000	Skin
3-butoxypropan-2-ol; propylene glycol monobutyl ether	NATIONAL	CZECHIA	270.000		550.000		
2-(2-butoxyethoxy) ethanol; diethylene glycol monobutyl ether	EU	NNN	67.5	10	101.2	15	Indicative Occupational Exposure Limit Value (IOELV)
	NATIONAL	BELGIUM	67.500	10.000	101.200	15.000	
	NATIONAL	DENMARK	100.000		200.000		
	NATIONAL	FINLAND	68.000	10.000			
	NATIONAL	FRANCE	67.500	10.000	101.200	15.000	Italic type: Indicative statutory limit values
	NATIONAL	GERMANY	67.000	10.000	100.000	15.000	AGS; Long term and short term: inhalable aerosol and vapour
	NATIONAL	GERMANY	67.000	10.000	100.500	15.000	DFG; MAK value applies for the sum of the concentrations of diethylene glycol monobutyl ethe and its acetate in the air; Long term and short term: Inhalable fraction and vapour
	NATIONAL	HUNGARY	67.500		101.200		
	NATIONAL	IRELAND	67.500	10.000	101.200	15.000	
	NATIONAL	LATVIA	67.500	10.000	101.200	15.000	
	NATIONAL	POLAND	67.000		100.000		
	NATIONAL	ROMANIA	67.500	10.000	101.200	15.000	
	NATIONAL	SPAIN	67.500	10.000	101.200	15.000	
	NATIONAL	SWEDEN	68.000	10.000	101.000	15.000	
	NATIONAL	SWITZERLAND	67.000	10.000	101.200	15.000	
	NATIONAL	NETHERLANDS	50.000		100.000		
	NATIONAL	TURKEY	67.500	10.000	101.200	15.000	
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	67.500	10.000	101.200	15.000	
	NATIONAL	ITALY	67.500	10.000	101.200	15.000	
	NATIONAL	BULGARIA	67.500	10.000	101.200	15.000	
	NATIONAL	CROATIA	67.500	10.000	101.200	15.000	
	NATIONAL	GREECE	67.500	10.000	101.200	15.000	

	NATIONAL	ICELAND	67.500	10.000	101.200	15.000	
	NATIONAL	SLOVAKIA	67.500	10.000	101.200	15.000	
	NATIONAL	CZECHIA	70.000		100.000		
	NATIONAL	KOREA, REPUBLIC OF		10.000			
	NATIONAL	NORWAY	68.000	10.000			
	NATIONAL	RUSSIAN FEDERATION			10.000		
	NATIONAL	UNITED STATES OF AMERICA	67.500	10.000			Ihalable fraction and vapour
	NATIONAL	PORTUGAL		10.000			
	ACGIH	NNN		10			(IFV) - Hematologic, liver and kidney eff
	EU	NNN	67.5	10	101.2	15	
(2-methoxymethylethoxy)propanol	NATIONAL	ITALY	308.000	50.000			Cute
	EU	NNN	308.000	50.000			
	NATIONAL	AUSTRALIA	2.000				This value is for inhalable dust containing no asbestos and < 1% crystalline silica
	NATIONAL	AUSTRIA	4.000				Inhalable aerosol
	NATIONAL	BELGIUM	10.000				
	NATIONAL	CANADA	10.000				Ontario
	NATIONAL	CANADA	6.000				Quebec
	NATIONAL	DENMARK	2.000		4.000		Inhalable aerosol
	NATIONAL	FINLAND	5.000				
	NATIONAL	GERMANY	4.000				AGS; Inhalable aerosol
	NATIONAL	GERMANY	4.000				DFG; Inhalable aerosol
	NATIONAL	IRELAND	6.000				Inhalable fraction
	NATIONAL	IRELAND	2.400				Respirable fraction
	NATIONAL	LATVIA	1.000				
	NATIONAL	NEW ZEALAND	1.000				
	NATIONAL	CHINA	2.000				Inhalable fraction
	NATIONAL	SINGAPORE	10.000				
	NATIONAL	KOREA, REPUBLIC OF	10.000				
	NATIONAL	SWITZERLAND	4.000				Inhalable aerosol
	NATIONAL	UNITED STATES OF AMERICA	80.000				OSHA; 80/ % silica total dust (MG3)
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	6.000				Inhalable aerosol
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	2.400				Respirable aerosol
	NATIONAL	ESTONIA	2.000				
	NATIONAL	SLOVENIA	4.000				Inhalable fraction
	NATIONAL	SOUTH AFRICA	6.000				Inhalable particulate
	NATIONAL	SOUTH AFRICA	3.000				Respirable particulate

	NATIONAL	UNITED STATES OF AMERICA		10.000		OARS WEEL
	NATIONAL	AUSTRALIA	10.000			
	NATIONAL	AUSTRIA	10.000			
	NATIONAL	BELGIUM	2.000			Inhalable fraction and vapour
	NATIONAL	CANADA	2.000			Ontario; Inhalable fraction and vapour
	NATIONAL	CANADA	10.000			Quebec
	NATIONAL	DENMARK	10.000		20.000	
	NATIONAL	FINLAND	10.000		20.000	
	NATIONAL	FRANCE	10.000			
	NATIONAL	GERMANY	10.000		40.000	ASG; Long term and short term: inhalable aerosol and vapour
	NATIONAL	GERMANY	10.000		40.000	DFG; Long term and short term: inhalable fraction and vapour
	NATIONAL	IRELAND	10.000			
	NATIONAL	NEW ZEALAND	10.000			
	NATIONAL	SINGAPORE	10.000			
	NATIONAL	KOREA, REPUBLIC OF	2.000			
	NATIONAL	SWITZERLAND	10.000			Inhalable aerosol
	NATIONAL	SWITZERLAND			40.000	
	NATIONAL	UNITED STATES OF AMERICA	10.000			NIOSH
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	10.000			
	NATIONAL	ITALY	2.000			
	NATIONAL	ARGENTINA	2.000			Vapour and aerosol
	NATIONAL	BULGARIA	10.000		50.000	
	NATIONAL	CROATIA	10.000			
	NATIONAL	INDONESIA	10.000			
	NATIONAL	ICELAND	10.000			
	NATIONAL	MALAYSIA	10.000			
	NATIONAL	MEXICO	2.000			
	NATIONAL	PORTUGAL	2.000			
	NATIONAL	SLOVENIA	10.000		40.000	
	NATIONAL	SPAIN	10.000			
	NATIONAL	SOUTH AFRICA	10.000			
	ACGIH	NNN	2			(IFV), A4 - URT irr
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	NATIONAL	AUSTRIA	0.050			
	NATIONAL	GERMANY	0.200		0.400	DFG; Long term and short term: inhalable fraction
	NATIONAL	SWITZERLAND	0.200		0.400	Inhalable fraction
	NATIONAL	KOREA, REPUBLIC OF	0.100			
	NATIONAL	NETHERLANDS	0.200			

Biological limit values

Component	CAS-No.	Value	UoM	Medium	Biological Indicator	Sampling Period
2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve	111-76-2	150	mg/g	Urine	2-Butoxyethylacetat	End of turn; End of working week

Predicted No Effect Concentration (PNEC) values

Component	CAS-No.	PNEC Limit	Exposure Route	Exposure Frequency	Remark
2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve	111-76-2	8.800 mg/l	Fresh Water		
		26.400 mg/l	Intermittent releases (fresh water)		
		880.000 µg/l	Marine water		
		463.000 mg/l	Microorganisms in sewage treatments		
		34.600 mg/kg	Freshwater sediments		
		3.460 mg/kg	Marine water sediments		
		2.330 mg/kg	Soil		
		20.000 mg/kg	Secondary poisoning		
3-butoxypropan-2-ol; propylene glycol monobutyl ether	5131-66-8	525.000 µg/l	Fresh Water		
		5.250 mg/l	Intermittent releases (fresh water)		
		52.500 µg/l	Marine water		
		10.000 mg/l	Microorganisms in sewage treatments		
		2.360 mg/kg	Freshwater sediments		
		236.000 µg/kg	Marine water sediments		
		160.000 µg/kg	Soil		

Derived No Effect Level (DNEL) values

Component	CAS-No.	Worker Industry	Worker Professional	Consumer	Exposure Route	Exposure Frequency	Remark
2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve	111-76-2		98.000 mg/m³	59.000 mg/m³	Human Inhalation		Long Term, systemic effects
			1091.000 mg/m³	426.000 mg/m³	Human Inhalation		Short Term, systemic effects
			246.000 mg/m³	147.000 mg/m³	Human Inhalation		Short Term, local effects

		125.000 mg/kg	75.000 mg/kg	Human Dermal	Long Term, systemic effects
		89.000 mg/kg	89.000 mg/kg	Human Dermal	Short Term, systemic effects
			6.300 mg/kg	Human Oral	Long Term, systemic effects
			26.700 mg/kg	Human Oral	Short Term, systemic effects
3-butoxypropan-2-ol; propylene glycol monobutyl ether	5131-66-8	147.000 mg/m³	43.000 mg/m³	Human Inhalation	Long Term, systemic effects
		52.000 mg/kg	22.000 mg/kg	Human Dermal	Long Term, systemic effects
			12.500 mg/kg	Human Oral	Long Term, systemic effects

8.2. Exposure controls

Eye protection:

Not needed for normal use. Anyway, operate according good working practices.

Protection for skin:

No special precaution must be adopted for normal use.

Protection for hands:

Not needed for normal use.

Respiratory protection:

N.A.

Thermal Hazards:

N.A.

Environmental exposure controls:

N.A.

Hygienic and Technical measures

N.A.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State: Liquid

Colour: N.A.

Odour: N.A.

Odour threshold: N.A.

pH: =7.70

Kinematic viscosity: N.A.

Melting point / freezing point: 110 °C (230 °F)

Initial boiling point and boiling range: 100 °C (212 °F)

Flash point: N.A.

Upper/lower flammability or explosive limits: N.A.

Vapour density: N.A.

Vapour pressure: N.A.

Relative density: 1.03 g/cm3

Solubility in water: Soluble

Solubility in oil: N.A.

Partition coefficient (n-octanol/water): N.A.

Auto-ignition temperature: N.A.

Decomposition temperature: N.A.

Flammability: N.A.

Volatile Organic compounds - VOCs = 7.85 % ; 80.81 g/l

Particle characteristics:

Particle size: N.A.

9.2. Other information

Miscibility: N.A.

Conductivity: N.A.

Evaporation rate: N.A. No other relevant information

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Data not available.

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicological Information of the Preparation

a) acute toxicity	Not classified
	Based on available data, the classification criteria are not met
b) skin corrosion/irritation	Not classified
	Based on available data, the classification criteria are not met
c) serious eye damage/irritation	Not classified
	Based on available data, the classification criteria are not met
d) respiratory or skin sensitisation	Not classified
	Based on available data, the classification criteria are not met
e) germ cell mutagenicity	Not classified
	Based on available data, the classification criteria are not met
f) carcinogenicity	Not classified
	Based on available data, the classification criteria are not met
g) reproductive toxicity	Not classified
	Based on available data, the classification criteria are not met
h) STOT-single exposure	Not classified
	Based on available data, the classification criteria are not met
i) STOT-repeated exposure	Not classified
	Based on available data, the classification criteria are not met
j) aspiration hazard	Not classified
	Based on available data, the classification criteria are not met

Toxicological information on main components of the mixture:

2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve	a) acute toxicity	ATE - Oral : 1200 mg/kg bw	
		LD50 Oral Guineapig = 1414.00 mg/kg	
		LC50 Inhalation Vapour Rat = 2.56 mg/l 4h	
		LD50 Skin Guineapig > 2000.00 mg/kg	
	b) skin corrosion/irritation	Skin Irritant Rabbit Positive 4h	
	c) serious eye damage/irritation	Eye Irritant Rabbit Yes 24h	
	d) respiratory or skin sensitisation	Skin Sensitization Guineapig Negative	
	f) carcinogenicity	Genotoxicity Negative	Mouse intraperitoneal rout
		Carcinogenicity Inhalation Rat = 125.00 mg/m3	NOAEC
	g) reproductive toxicity	No Observed Adverse Effect Level Oral = 720.00 mg/kg	Mouse
3-butoxypropan-2-ol; propylene glycol	a) acute toxicity	LD50 Oral Rat = 3300.00000 mg/kg	

monobutyl ether

	LD50 Skin Rat > 2000.00000 mg/kg	
	LC50 Inhalation Vapour Rat > 3.50000 mg/l 4h	
b) skin corrosion/irritation	Skin Irritant Rabbit Positive	
c) serious eye damage/irritation	Eye Irritant Rabbit Yes	
d) respiratory or skin sensitisation	Respiratory Sensitization Guineapig Negative	
	Skin Sensitization Guineapig Negative	
g) reproductive toxicity	No Observed Effect Level Rat = 1000.00000 Ppm	Inhalation

11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration >= 0.1%

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

List of Eco-Toxicological properties of the product

Not classified for environmental hazards.

No data available for the product

List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve	CAS: 111-76-2 - EINECS: 203-905-0 - INDEX: 603-014-00-0	a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 1474.00 mg/L 96h
		b) Aquatic chronic toxicity : NOEC Fish Brachydanio rerio = 100.00 mg/L OECD204 - 21days
		a) Aquatic acute toxicity : EC50 freshwater invertebrates = 690.00 mg/L
		b) Aquatic chronic toxicity : NOEC Daphnia Daphnia magna = 100.00 mg/L
		a) Aquatic acute toxicity : EC50 Algae pseudokirchneriella subcapitata = 623.00 mg/L 72h
		c) Bacteria toxicity : NOEC Uronema parduczi = 463.00 mg/L 48h
3-butoxypropan-2-ol; propylene glycol monobutyl ether	CAS: 5131-66-8 - EINECS: 225-878-4 - INDEX: 603-052-00-8	a) Aquatic acute toxicity : LC50 Fish Poecilia Reticulata >= 560.00000 mg/L 96h OECD - Guideline 203 Static
		a) Aquatic acute toxicity : EC50 Daphnia daphnia magna > 1000.00000 mg/L 48h ,,OECD - Guideline 202, Part 1, Static
		a) Aquatic acute toxicity : NOEC Algae Selenastrum capricornutum = 560.00000 mg/L 96h OECD - Guideline 201 Static
		a) Aquatic acute toxicity : EC50 Sludge activated sludge microorganisms > 1000.00000 mg/L 3h OECD - Guideline 209 (180min)

12.2. Persistence and degradability

Component	Persitence/Degradability:	Test	Value	Notes:
2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve	Readily biodegradable	Biochemical oxigen demand	98.000	28days
3-butoxypropan-2-ol; propylene glycol monobutyl ether	Readily biodegradable			OECD - Guideline 301E Biodegradability 90% (28d)

12.3. Bioaccumulative potential

Component	Bioaccumulation	Test	Value	Notes:

3-butoxypropan-2-ol; propylene glycol monobutyl ether	Not bioaccumulative	BCF - Bioconcentrantion factor	3.160	
	Not bioaccumulative	Kow - Partition coefficient	1.150	at 20°C measured

12.4. Mobility in soil

Component	Mobility in soil	Notes:
3-butoxypropan-2-ol; propylene glycol monobutyl ether	Mobile	Koc 1,3-6,0 Estimated

12.5. Results of PBT and vPvB assessment

No PBT or vPvB substances present in concentration >= 0.1%

12.6. Endocrine disrupting properties

No endocrine disruptor substances present in concentration >= 0.1%

12.7. Other adverse effects

N.A.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover if possible. In so doing, comply with the local and national regulations currently in force. Disposal through discharge into wastewater is not permitted

A waste code according to the European List of Wastes (LoW) cannot be specified, due to dependence on the usage. Contact an authorized waste disposal service.

Properties of waste which render it hazardous (Annex III, Directive 2008/98/EC):

N.A.

SECTION 14: Transport information

Not classified as dangerous in the meaning of transport regulations.

14.1. UN number or ID number

N.A.

14.2. UN proper shipping name

N.A.

14.3. Transport hazard class(es)

N.A.

14.4. Packing group

N.A.

14.5. Environmental hazards

N.A.

14.6. Special precautions for user

N.A.

Road and Rail (ADR-RID):

N.A.

Air (IATA):

N.A.

Sea (IMDG):

N.A.

14.7. Maritime transport in bulk according to IMO instruments

N.A.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP)
Regulation (EU) n. 2016/1179 (ATP 9 CLP)
Regulation (EU) n. 2017/776 (ATP 10 CLP)
Regulation (EU) n. 2018/669 (ATP 11 CLP)
Regulation (EU) n. 2018/1480 (ATP 13 CLP)
Regulation (EU) n. 2019/521 (ATP 12 CLP)
Regulation (EU) n. 2020/217 (ATP 14 CLP)
Regulation (EU) n. 2020/1182 (ATP 15 CLP)
Regulation (EU) n. 2021/643 (ATP 16 CLP)
Regulation (EU) n. 2020/878
Regulation (EC) nr 648/2004 (Detergents).

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product: None.

Restrictions related to the substances contained: 55, 70, 75

Provisions related to directive EU 2012/18 (Seveso III):

N.A.

Regulation (EU) No 649/2012 (PIC regulation)

No substances listed

German Water Hazard Class.

Non-hazardous to waters

SVHC Substances:

No data available

Dir. 2004/42/EC (VOC directive)

(ready to use)

Volatile Organic compounds - VOCs = 7.85 %

Volatile Organic compounds - VOCs = 80.81 g/L

15.2. Chemical safety assessment

A Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Code	Description
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.

Code	Hazard class and hazard category	Description
3.1/4/Inhal	Acute Tox. 4	Acute toxicity (inhalation), Category 4
3.1/4/Oral	Acute Tox. 4	Acute toxicity (oral), Category 4
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/2	Eye Irrit. 2	Eye irritation, Category 2

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ATE: Acute Toxicity Estimate

ATEmix: Acute toxicity Estimate (Mixtures)

BCF: Biological Concentration Factor

BEI: Biological Exposure Index

BOD: Biochemical Oxygen Demand
CAS: Chemical Abstracts Service (division of the American Chemical Society).
CAV: Poison Center
CE: European Community
CLP: Classification, Labeling, Packaging.
CMR: Carcinogenic, Mutagenic and Reprotoxic
COD: Chemical Oxygen Demand
COV: Volatile Organic Compound
CSA: Chemical Safety Assessment
CSR: Chemical Safety Report
DMEL: Derived Minimal Effect Level
DNEL: Derived No Effect Level.
DPD: Dangerous Preparations Directive
DSD: Dangerous Substances Directive
EC50: Half Maximal Effective Concentration
ECHA: European Chemicals Agency
EINECS: European Inventory of Existing Commercial Chemical Substances.
ES: Exposure Scenario
GefStoffVO: Ordinance on Hazardous Substances, Germany.
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
IC50: half maximal inhibitory concentration
ICAO: International Civil Aviation Organization.
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG: International Maritime Code for Dangerous Goods.
INCI: International Nomenclature of Cosmetic Ingredients.
IRCCS: Scientific Institute for Research, Hospitalization and Health Care
KAFH: Keep Away From Heat
KSt: Explosion coefficient.
LC50: Lethal concentration, for 50 percent of test population.
LD50: Lethal dose, for 50 percent of test population.
LDLo: Leathal Dose Low
N.A.: Not Applicable
N/A: Not Applicable
N/D: Not defined/ Not available
NA: Not available
NIOSH: National Institute for Occupational Safety and Health
NOAEL: No Observed Adverse Effect Level
OSHA: Occupational Safety and Health Administration
PBT: Persistent, Bioaccumulative and Toxic
PGK: Packaging Instruction
PNEC: Predicted No Effect Concentration.
PSG: Passengers
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
vPvB: Very Persistent, Very Bioaccumulative.
WGK: German Water Hazard Class.

Paragraphs modified from the previous revision:

- 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Exposure Scenario
2-butoxyethanol

Exposure Scenario, 17/03/2023

Substance identity	
	2-butoxyethanol
CAS No.	111-76-2
INDEX No.	603-014-00-0
EINECS No.	203-905-0
Registration number	01-2119475108-36

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1. ES 1

1.1 TITLE SECTION

Exposure Scenario name	Professional application of coatings and inks
Date - Version	17/03/2023 - 1.0
Main user group	Professional uses
Sector(s) of use	Professional uses (SU22)
Product Categories	Coatings and paints, thinners, paint removers (PC9a)

Environment Contributing Scenario	
CS1	ERC8a - ERC8d

Worker Contributing Scenario	
CS2 Material transfers	PROC8a
CS3 Rolling, Brushing	PROC10
CS4 Rolling, Brushing	PROC10
CS5 Roller, spreader, flow application	PROC11
CS6 Roller, spreader, flow application	PROC11

1.2 Conditions of use affecting exposure

1.2. CS1: Environment Contributing Scenario (ERC8a, ERC8d)

Environmental release categories	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) - Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) (ERC8a, ERC8d)

Product (article) characteristics

Physical form of product:
Liquid, vapour pressure > 10 Pa (Standard Temperature and Pressure)

Vapour pressure:
= 117 Pa

Concentration of substance in product:
Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use (or from service life)

Emission days: 365 days per year

Technical and organisational conditions and measures

Control measures to prevent releases

	Air - minimum efficiency of: 98 % Soil - minimum efficiency of: 1 % Water - minimum efficiency of: 1 %

Conditions and measures related to sewage treatment plant

STP type:
Municipal Sewage Treatment Plant
STP effluent (m^3/day): 2000

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10
Receiving surface water flow: 18000 m³/day
Covers indoor and outdoor use

1.2. CS2: Worker Contributing Scenario: Material transfers (PROC8a)

Process Categories	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)

Product (article) characteristics

Physical form of product:
Liquid, vapour pressure > 10 Pa (Standard Temperature and Pressure)

Vapour pressure:
= 117 Pa

Concentration of substance in product:
Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:
Covers use up to = 480 min
Frequency:
Covers use up to 5 days per week

Technical and organisational conditions and measures

Technical and organisational measures

Provide a good standard of controlled ventilation (5 to 10 air changes per hour).	Inhalation - minimum efficiency of: = 70 %

Conditions and measures related to personal protection, hygiene and health evaluation

Personal protection

Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: = 80 %
Wear suitable face shield.	

Other conditions affecting worker exposure

Indoor use
Professional use
Temperature: Assumes use at not more than 20 °C above ambient temperature.

1.2. CS3: Worker Contributing Scenario: Rolling, Brushing (PROC10)

Process Categories	Roller application or brushing (PROC10)

Product (article) characteristics

Physical form of product:
Liquid, vapour pressure > 10 Pa (Standard Temperature and Pressure)

Vapour pressure:
= 117 Pa

Concentration of substance in product:
Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:
Covers use up to = 480 min
Frequency:

Covers use up to 5 days per week

Technical and organisational conditions and measures

Technical and organisational measures

Provide a good standard of controlled ventilation (5 to 10 air changes per hour).	Inhalation - minimum efficiency of: = 70 %

Conditions and measures related to personal protection, hygiene and health evaluation

Personal protection

Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: = 80 %
Wear suitable face shield.	

Other conditions affecting worker exposure

Indoor use
Professional use
Temperature: Assumes use at not more than 20 °C above ambient temperature.

1.2. CS4: Worker Contributing Scenario: Rolling, Brushing (PROC10)

Process Categories	Roller application or brushing (PROC10)

Product (article) characteristics

Physical form of product:
Liquid, vapour pressure > 10 Pa (Standard Temperature and Pressure)

Vapour pressure:
= 117 Pa

Concentration of substance in product:
Covers percentage substance in the product up to 25 %.

Amount used, frequency and duration of use/exposure

Duration:
Covers use up to = 480 min
Frequency:
Covers use up to 5 days per week

Conditions and measures related to personal protection, hygiene and health evaluation

Personal protection

Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: = 80 %
Wear suitable face shield.	

Other conditions affecting worker exposure

Outdoor use
Professional use
Temperature: Assumes use at not more than 20 °C above ambient temperature.

1.2. CS5: Worker Contributing Scenario: Roller, spreader, flow application (PROC11)

Process Categories	Non industrial spraying (PROC11)

Product (article) characteristics

Physical form of product:
Liquid, vapour pressure > 10 Pa (Standard Temperature and Pressure)

Vapour pressure:
= 117 Pa

Concentration of substance in product:
Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Amounts used:
Amount per use < 3 L/min

Duration:
Covers use up to = 240 min

Frequency:
Covers use up to 5 days per week

Technical and organisational conditions and measures

Technical and organisational measures
Ensure operatives are trained to minimise exposures.
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).

Conditions and measures related to personal protection, hygiene and health evaluation

Personal protection

Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: = 80 %
Wear suitable respiratory protection.	Inhalation - minimum efficiency of: = 95 %
Wear suitable face shield.	

Other conditions affecting worker exposure

Indoor use
Professional use
Temperature: Assumes use at not more than 20 °C above ambient temperature.

1.2. CS6: Worker Contributing Scenario: Roller, spreader, flow application (PROC11)

Process Categories	Non industrial spraying (PROC11)

Product (article) characteristics

Physical form of product:
Liquid, vapour pressure > 10 Pa (Standard Temperature and Pressure)

Vapour pressure:
= 117 Pa

Concentration of substance in product:
Covers percentage substance in the product up to 25 %.

Amount used, frequency and duration of use/exposure

Amounts used:
Amount per use < 3 L/min

Duration:
Covers use up to = 480 min

Frequency:
Covers use up to 5 days per week

Technical and organisational conditions and measures

Technical and organisational measures
Ensure operatives are trained to minimise exposures.
Ensure that a spraying booth is used.

Conditions and measures related to personal protection, hygiene and health evaluation

Personal protection
Wear suitable respiratory protection.
Wear suitable face shield.

Other conditions affecting worker exposure

Indoor use
Professional use
Temperature: Assumes use at not more than 20 °C above ambient temperature.

1.3 Exposure estimation and reference to its source

1.3. CS1: Environment Contributing Scenario (ERC8a, ERC8d)

protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
soil	N/A	ECETOC TRA environment v3	= 0.018688

Additional information on exposure estimation:
Risk from environmental exposure is driven by soil.

1.3. CS2: Worker Contributing Scenario: Material transfers (PROC8a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	= 2.7429 mg/kg bw/day	ECETOC TRA worker v3	= 0.021943
inhalative, systemic, long-term	= 36.9294 mg/m³	ECETOC TRA worker v3	= 0.376831

1.3. CS3: Worker Contributing Scenario: Rolling, Brushing (PROC10)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	= 5.4857 mg/kg bw/day	ECETOC TRA worker v3	= 0.043886
inhalative, systemic, long-term	= 36.9294 mg/m³	ECETOC TRA worker v3	= 0.376831

1.3. CS4: Worker Contributing Scenario: Rolling, Brushing (PROC10)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	= 3.2914 mg/kg bw/day	ECETOC TRA worker v3	= 0.026331
inhalative, systemic, long-term	= 57.7012 mg/m³	ECETOC TRA worker v3	= 0.527563

1.3. CS5: Worker Contributing Scenario: Roller, spreader, flow application (PROC11)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	= 21.4286 mg/kg bw/day	ECETOC TRA worker v3	= 0.171429

inhalative, systemic, long-term	= 55 mg/m³	ECETOC TRA worker v3	= 0.561224

1.3. CS6: Worker Contributing Scenario: Roller, spreader, flow application (PROC11)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	= 12.8571 mg/kg bw/day	ECETOC TRA worker v3	= 0.102857
inhalative, systemic, long-term	= 62 mg/m³	ECETOC TRA worker v3	= 0.632653

1.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Guidance to check compliance with the exposure scenario:

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure Scenario
1-butoxypropan-2-ol

Exposure Scenario, 20/05/2021

Substance identity	
	1-butoxypropan-2-ol
CAS No.	5131-66-8
INDEX No.	603-052-00-8
EINECS No.	225-878-4
Registration number	01-2119475527-28

Table of contents

1. ES 1 Widespread use by professional workers; Coatings and paints, thinners, paint removers (PC9a)

1.1 TITLE SECTION

Exposure Scenario name	Professional application of coatings and inks by brush or roller - Use in coatings
Date - Version	07/04/2021 - 1.0
Life Cycle Stage	Widespread use by professional workers
Main user group	Professional uses
Sector(s) of use	Professional uses (SU22)
Product Categories	Coatings and paints, thinners, paint removers (PC9a)

Environment Contributing Scenario	
CS1 Low environmental release	ERC8a

Worker Contributing Scenario	
CS2 Mixing operations	PROC5
CS3 Equipment cleaning and maintenance - Filling of equipment from drums or containers	PROC8a
CS4 Roller, spreader, flow application	PROC10
CS5 Roller, spreader, flow application	PROC11

1.2 Conditions of use affecting exposure

1.2. CS1: Environment Contributing Scenario: Low environmental release (ERC8a)

Environmental release categories	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) (ERC8a)

Product (article) characteristics

Physical form of product:
Liquid, vapour pressure < 0,5 kPa at STP

Vapour pressure:
Vapour pressure < 0.01 Pa at standard temperature and pressure

Concentration of substance in product:
Covers percentage substance in the product up to 25 %.

Amount used, frequency and duration of use (or from service life)

Amounts used:
Daily amount per site = 0.27 kg/day

Maximum allowable site tonnage (MSafe): 94 kg/day

Critical compartment for Msafe: wastewater treatment plant microbes

Release type: Continuous release

Emission days: 365 days per year

Conditions and measures related to sewage treatment plant

STP type:
Onsite Sewage Treatment Plant
Water - minimum efficiency of: = 87.4 %

Other conditions affecting environmental exposure

Local marine water dilution factor: 100
Local freshwater dilution factor: 10
Indoor use

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.

Additional Good Practice Advice:
Do not apply industrial sludge to natural soils. Ensure regular inspection, cleaning and maintenance of equipment and machines. Ensure procedures and training for emergency decontamination and disposal are in place. Ensure control measures are regularly inspected and maintained.

1.2. CS2: Worker Contributing Scenario: Mixing operations (PROC5)

Process Categories	Mixing or blending in batch processes (PROC5)

Product (article) characteristics

Physical form of product:
Liquid, vapour pressure < 0,5 kPa at STP

Concentration of substance in product:
Covers percentage substance in the product up to 25 %.

Amount used, frequency and duration of use/exposure

Duration:
Covers use up to = 480 min/day
Frequency:
Covers frequency up to: = 5 days per week

Technical and organisational conditions and measures

Technical and organisational measures
Ensure operatives are trained to minimise exposures.
Provide extract ventilation to points where emissions occur.

Conditions and measures related to personal protection, hygiene and health evaluation

Personal protection
Wear suitable gloves tested to EN374.

Other conditions affecting worker exposure

Indoor use
Professional use
Temperature: Covers use at ambient temperatures. 20°C
Body parts exposed:
Assumes that potential dermal contact is limited to hands.

1.2. CS3: Worker Contributing Scenario: Equipment cleaning and maintenance - Filling of equipment from drums or containers (PROC8a)

Process Categories	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)

Product (article) characteristics

Physical form of product:
Liquid, vapour pressure < 0,5 kPa at STP

Concentration of substance in product:
Covers percentage substance in the product up to 25 %.

Amount used, frequency and duration of use/exposure

Duration:
Covers use up to = 480 min/day
Frequency:
Covers frequency up to: = 5 days per week

Technical and organisational conditions and measures

Technical and organisational measures
Ensure operatives are trained to minimise exposures.
Avoid carrying out activities involving exposure for more than 4 hours per day.

Conditions and measures related to personal protection, hygiene and health evaluation

Personal protection
Wear suitable gloves tested to EN374.

Other conditions affecting worker exposure

Indoor use
Professional use
Temperature: Covers use at ambient temperatures. 20°C
Body parts exposed:
Assumes that potential dermal contact is limited to hands.

1.2. CS4: Worker Contributing Scenario: Roller, spreader, flow application (PROC10)

Process Categories	Roller application or brushing (PROC10)

Product (article) characteristics

Physical form of product:
Liquid, vapour pressure < 0,5 kPa at STP

Concentration of substance in product:
Covers percentage substance in the product up to 25 %.

Amount used, frequency and duration of use/exposure

Duration:
Covers use up to = 480 min/day
Frequency:
Covers frequency up to: = 5 days per week

Technical and organisational conditions and measures

Technical and organisational measures
Ensure operatives are trained to minimise exposures.
Provide extract ventilation to points where emissions occur.

Conditions and measures related to personal protection, hygiene and health evaluation

Personal protection
Wear suitable gloves tested to EN374.

Other conditions affecting worker exposure

Indoor use
Professional use
Temperature: Covers use at ambient temperatures. 20°C
Body parts exposed:
Assumes that potential dermal contact is limited to hands.

1.2. CS5: Worker Contributing Scenario: Roller, spreader, flow application (PROC11)

Process Categories	Non industrial spraying (PROC11)

Product (article) characteristics

Physical form of product:
Liquid, vapour pressure < 0,5 kPa at STP

Concentration of substance in product:
Covers percentage substance in the product up to 25 %.

Amount used, frequency and duration of use/exposure

Duration:
Covers use up to = 480 min/day

Frequency:
Covers frequency up to: = 5 days per week

Technical and organisational conditions and measures

Technical and organisational measures
Ensure operatives are trained to minimise exposures.
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).

Conditions and measures related to personal protection, hygiene and health evaluation

Personal protection
Wear suitable gloves tested to EN374.
Use eye protection according to EN 166.
Wear a respirator conforming to EN140.

Other conditions affecting worker exposure

Indoor use
Professional use
Temperature: Covers use at ambient temperatures. 20°C
Body parts exposed:
Assumes that potential dermal contact is limited to hands.

1.3 Exposure estimation and reference to its source

1.3. CS1: Environment Contributing Scenario: Low environmental release (ERC8a)

protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
soil	= 0.00045 mg/kg dry weight	ECETOC TRA environment v3	= 0.00284
freshwater	N/A	ECETOC TRA environment v3	= 0.00075
freshwater sediment	= 0.00176 mg/kg dry weight	ECETOC TRA environment v3	= 0.00075
marine water	= 5E-05 mg/L	ECETOC TRA environment v3	= 0.001
marine sediment	= 0.00024 mg/kg dry weight	ECETOC TRA environment v3	= 0.001

Additional information on exposure estimation:
Risk from environmental exposure is driven by soil.

1.3. CS2: Worker Contributing Scenario: Mixing operations (PROC5)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	= 11.02 mg/m³	ECETOC TRA worker v3	= 0.07
dermal, systemic, long-term	= 2.74 mg/kg bw/day	ECETOC TRA worker v3	= 0.05

1.3. CS3: Worker Contributing Scenario: Equipment cleaning and maintenance - Filling of equipment from drums or containers (PROC8a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	= 82.63 mg/m³	ECETOC TRA worker v3	= 0.56
dermal, systemic, long-term	= 2.74 mg/kg bw/day	ECETOC TRA worker v3	= 0.05

1.3. CS4: Worker Contributing Scenario: Roller, spreader, flow application (PROC10)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	= 27.54 mg/m³	ECETOC TRA worker v3	= 0.19
dermal, systemic, short-term	= 5.49 mg/kg bw/day	ECETOC TRA worker v3	= 0.11

1.3. CS5: Worker Contributing Scenario: Roller, spreader, flow application (PROC11)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	= 77.12 mg/m³	ECETOC TRA worker v3	= 0.52
dermal, systemic, long-term	= 10.71 mg/kg bw/day	ECETOC TRA worker v3	= 0.21

1.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Guidance to check compliance with the exposure scenario:
Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.