Safety Data Sheet

Conforms to Regulation (EC) No. 1907/2006 (REACH), Article 31, Annex II, as amended by Commission Regulation (EU) 2020/878

KERADECOR SINTOLITE

Date of first edition: 3/29/2021

Safety Data Sheet dated 5/18/2023

version 8

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

1.1. Product identifier

Mixture identification:

Trade name: KERADECOR SINTOLITE

Trade code: 30032021 18

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

Recommended use: primer

Uses advised against: All uses other than recommended ones

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

Kerakoll Italy (+39) 0536 816511

Ireland

Poison information centre: (+353) 809 2166 (Daily 8am-10pm)

In case of emergency call 999 or 112

Malta

In case of emergency call: 112 (24h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flam. Liq. 3	Flammable liquid and vapour.
DECL10	This titanium dioxide-containing product is not classified as carcinogen by inhalation because it does not meet the criteria stated in Note 10, Annex VI of Regulation (EC) 1272/2008. Note 10: The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter ≤ 10 µm.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Regulation (EC) No 1272/2008 (CLP):

Pictograms and Signal Words

Warning

Hazard statements

H226 Flammable liquid and vapour.

Precautionary statements

P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves and eye protection.
P370+P378	In case of fire, use water to extinguish.
P501	Dispose of contents/container in accordance with applicable regulations.

Dir. 2004/42/EC (VOC directive)

Primers

EU limit value for this product (cat. A/g): 350 g/l

This product contains max 317.08 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: KERADECOR SINTOLITE

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

Qty	Name	Ident. Numb.	Classification	Registration Number
10-19,9 %	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	EC:919-857-5	Asp. Tox. 1, H304; Flam. Liq. 3, H226; STOT SE 3, H336, EUH066	01-2119463258-33
10-19,9 %	titanium dioxide	CAS:13463-67-7 EC:236-675-5 Index:022-006-00-2	Carc. 2, H351	
< 0,01 %	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
< 0,01 %	xylene	CAS:1330-20-7 EC:215-535-7 Index:601-022-00-9	Flam. Liq. 3, H226; Acute Tox. 4, H332; Acute Tox. 4, H312; Skin Irrit. 2, H315; Asp. Tox. 1, H304; STOT RE 2, H373; Eye Irrit. 2, H319; STOT SE 3, H335	01-2119488216-32
< 0,01 %	ethylbenzene	CAS:100-41-4 EC:202-849-4 Index:601-023-00-4	Flam. Liq. 2, H225; Acute Tox. 4, H332; STOT RE 2, H373; Asp. Tox. 1, H304; Aquatic Chronic 3, H412	01-2119489370-35

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:

In case of fire, use water to extinguish.

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 all sources of ignition.

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, inhaltion 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

Store at below 20 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.

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	Notes
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	NATIONAL	GERMANY		300.000	50.000	600.000	100.000	DFG
	NATIONAL	POLAND		300.000		900.000		

	NATIONAL	SWITZERLAND	300.000	50.000	600.000	100.000	
titanium dioxide	NATIONAL	AUSTRALIA	10				
	NATIONAL	BELGIUM	10.000				
	NATIONAL	DENMARK	6.000		12.000		Long term and short term: total dust
	NATIONAL	FRANCE	11.000				Inhalable aerosol
	NATIONAL	GERMANY	0.300		2.400		DFG; Long term and short term: excluding ultrafine particles; respirable fraction; multiplied by the material density;
	NATIONAL	IRELAND	10.000				Inhalable fraction
	NATIONAL	IRELAND	8.000				Respirable fraction
	NATIONAL	LATVIA	10.000				
	NATIONAL	POLAND	10.000		30.000		Dz. U. 2018 poz. 1286 wraz z późn. zm
	NATIONAL	ROMANIA	10.000		15.000		
	NATIONAL	SPAIN	10.000				Inhalable aerosol
	NATIONAL	SWEDEN	5.000				Inhalable aerosol
	NATIONAL	SWITZERLAND	3.000				Respirable aerosol
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	10.000				Inhalable aerosol
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	4.000				Respirable aerosol
	NATIONAL	AUSTRIA	5.000		10.000		
	NATIONAL	BULGARIA	10.000				
	NATIONAL	CROATIA	10.000				total dust
	NATIONAL	CROATIA	4.000				respirable dust
	NATIONAL	GREECE	10.000				
	NATIONAL	GREECE	50.000				
	NATIONAL	GREECE	5.000				
	NATIONAL	LITHUANIA	5.000				
	NATIONAL	PORTUGAL	10.000				
	NATIONAL	SLOVAKIA	5.000				
	NATIONAL	SLOVENIA	6.000				
	ACGIH	NNN	10.000				A4 - LRT irr
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	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	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	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	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	LITHUANIA	50.000	10.000	100.000	20.000	
	NATIONAL	PORTUGAL		20.000			
	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
xylene	ACGIH	NNN		100.000		150.000	A4, BEI - URT and eye irr, CNS impair
	EU	NNN	221.000	50.000	442.000	100.000	Skin
	NATIONAL	AUSTRIA	221.000	50.000	442.000	100.000	
	NATIONAL	BELGIUM	221.000	50.000	442.000	100.000	
	NATIONAL	DENMARK	109.000	25.000	442.000	100.000	
	NATIONAL	FINLAND	220.000	50.000	440.000	100.000	
	NATIONAL	FRANCE	221.000	50.000	442.000	100.000	
	NATIONAL	GERMANY	440.000	100.000	880.000	200.000	AGS
	NATIONAL	GERMANY	440.000	100.000	880.000	200.000	DFG
	NATIONAL	HUNGARY	221.000		442.000		
	NATIONAL	IRELAND	221.000	50.000	442.000	100.000	
	NATIONAL	ITALY	221.000	50.000	442.000	100.000	Cute
	NATIONAL	LATVIA	221.000	50.000	442.000	100.000	
	NATIONAL	POLAND		100.000			
	NATIONAL	ROMANIA	221.000	50.000	442.000	100.000	
	NATIONAL	SPAIN	221.000	50.000	442.000	100.000	
	NATIONAL	SWEDEN	221.000	50.000	442.000	100.000	
	NATIONAL	SWITZERLAND	435.000	100.000	870.000	200.000	
	NATIONAL	NETHERLANDS	210.000		442.000		
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN	220.000	50.000	441.000	100.000	

		AND NORTHERN IRELAND					
	NATIONAL	BULGARIA	221.000	50.000	445.000	100.000	
	NATIONAL	CZECHIA	200.000		400.000		
	NATIONAL	CROATIA	221.000	50.000	442.000	100.000	
	NATIONAL	ESTONIA	200.000	50.000	450.000	100.000	
	NATIONAL	GREECE	435.000	100.000	650.000	150.000	
	NATIONAL	LITHUANIA	221.000	50.000	442.000	100.000	
	NATIONAL	PORTUGAL		100.000		150.000	
	NATIONAL	SLOVAKIA	221.000	50.000	442.000	100.000	
	NATIONAL	SLOVENIA	221.000	50.000	442.000	100.000	
ethylbenzene	EU	NNN	442	100	884	200	Skin
	NATIONAL	AUSTRIA	440.000	100.000	880.000	200.000	
	NATIONAL	BELGIUM	87.000	20.000	551.000	125.000	
	NATIONAL	DENMARK	217.000	50.000	543.000	125.000	
	NATIONAL	FINLAND	220.000	50.000	880.000	200.000	
	NATIONAL	FRANCE	88.400	20.000	442.000	100.000	
	NATIONAL	GERMANY	88.000	20.000	176.000	40.000	AGS
	NATIONAL	GERMANY	88.000	20.000	176.000	40.000	DFG
	NATIONAL	HUNGARY	442.000		884.000		
	NATIONAL	IRELAND	442.000	100.000	884.000	200.000	
	NATIONAL	ITALY	442.000	100.000	884.000	200.000	Cute
	NATIONAL	LATVIA	442.000	100.000	884.000	200.000	
	NATIONAL	POLAND	200.000		400.000		
	NATIONAL	ROMANIA	442.000	100.000	884.000	200.000	
	NATIONAL	SPAIN	441.000	100.000	884.000	200.000	
	NATIONAL	SWEDEN	220.000	50.000	884.000	200.000	
	NATIONAL	SWITZERLAND	435.000	100.000	435.000	100.000	
	NATIONAL	NETHERLANDS	215.000		430.000		
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	441.000	100.000	552.000	125.000	
	NATIONAL	BULGARIA	435.000		545.000		
	NATIONAL	CZECHIA	200.000		500.000		
	NATIONAL	ESTONIA	442.000	100.000	884.000	200.000	
	NATIONAL	GREECE	435.000	100.000	545.000	200.000	
	NATIONAL	LITHUANIA	442.000	100.000	884.000	200.000	
	NATIONAL	PORTUGAL		20.000			
	NATIONAL	SLOVAKIA	442.000	100.000	884.000	200.000	
	NATIONAL	SLOVENIA	442.000	100.000	884.000	200.000	
	ACGIH	NNN		20.000			A3, BEI - URT irr, kidney dam (nephropathy), cochlear impair
	EU	NNN	442.000	100.000	884.000	200.000	Skin

Biological limit values

CAS-No.	Component	Value	UoM	Medium	Biological Indicator	Sampling Period
111-76-2	2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve	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
titanium dioxide	13463-67-7	0.184 mg/l	Freshwater	
		0.018 mg/l	Marine water	
		1.000 mg/kg	Intermittent releases (freshwater)	
		100.000 mg/kg	Intermittent releases (marine water)	
		100.000 mg/kg	Microorganisms in sewage treatments	
2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve	111-76-2	8.800 mg/l	Freshwater	
		26.400 mg/l	Intermittent releases (freshwater)	
		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 poinsoning	
xylene	1330-20-7	327.000 µg/l	Freshwater	
		327.000 µg/l	Intermittent releases (freshwater)	
		327.000 µg/l	Marine water	
		6.580 mg/l	Microorganisms in sewage treatments	
		12.460 mg/kg	Freshwater sediments	
		12.460 mg/kg	Marine water sediments	
		2.310 mg/kg	Soil	
ethylbenzene	100-41-4	100.000 µg/l	Freshwater	
		100.000 µg/l	Intermittent releases (freshwater)	
		55.000 µg/l	Marine water	
		9.600 mg/l	Microorganisms in sewage treatments	
		13.700 mg/kg	Freshwater sediments	
		1.370 mg/kg	Marine water sediments	
		2.680 mg/kg	Soil	
		20.000 mg/kg	Secondary poinsoning	

Derived No Effect Level (DNEL) values

Component	CAS-No.	Worker Industry	Worker Professional	Consumer	Exposure Route	Exposure Frequency
titanium dioxide	13463-67-7		10.000 mg/m³		Human Inhalation	Long Term, local effects
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
xylene	1330-20-7	289.000 mg/m³	174.000 mg/m³	Human Inhalation	Short Term, systemic effects
		289.000 mg/m³	174.000 mg/m³	Human Inhalation	Short Term, local effects
		180.000 mg/kg	108.000 mg/kg	Human Dermal	Long Term, systemic effects
			1.600 mg/kg	Human Oral	Long Term, systemic effects
		77.000 mg/kg	14.800 mg/kg	Human Inhalation	Long Term, systemic effects
ethylbenzene	100-41-4	77.000 mg/m³	15.000 mg/m³	Human Inhalation	Long Term, systemic effects
		293.000 mg/m³		Human Inhalation	Short Term, local effects
		180.000 mg/kg		Human Dermal	Long Term, systemic effects
		1.600 mg/kg		Human Oral	Long Term, systemic effects

8.2. Exposure controls

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

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

Color: White

Odour: Like: Hydrocarbons, aliphatic

Odour threshold: N.A.

pH: N.A.

Kinematic viscosity: > 20,5 mm2/sec (40 °C)

Melting point / freezing point: N.A.

Initial boiling point and boiling range: N.A.

Flash point: 23°C / 60°C

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

Vapour density: N.A.

Vapour pressure: N.A.

Relative density: 1.75 g/cm3

Solubility in water: Insoluble

Solubility in oil: N.A.
Partition coefficient (n-octanol/water): N.A.
Auto-ignition temperature: N.A.
Decomposition temperature: N.A.
Flammability: The product is classified Flam. Liq. 3 H226
Volatile Organic compounds - VOCs = 15.31 % ; 267.98 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

Avoid contact with combustible materials. The product could catch fire.

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:

Hydrocarbons, C9-C11, n- alkanes, isoalkanes, cyclics, <2% aromatics	a) acute toxicity	LD50 Oral Rat > 5000.00 mg/kg
		LC50 Inhalation Vapour Rat > 5000.00 mg/m3 8h
		LD50 Skin Rabbit > 2000.00 mg/kg 24h
	b) skin corrosion/irritation	Skin Irritant Rabbit Negative 4h

	c) serious eye damage/irritation	Eye Irritant Rabbit No	
	d) respiratory or skin sensitisation	Skin Sensitization Guineapig Negative	
	f) carcinogenicity	Genotoxicity Rat Negative	Inhalation route
		Carcinogenicity Inhalation Rat Positive	
	g) reproductive toxicity	No Observed Adverse Effect Level Rat > 20000.00 mg/m3	
titanium dioxide	a) acute toxicity	LD50 Oral Rat > 5000.00 mg/kg	
		LC50 Inhalation > 6.82 mg/l	
	d) respiratory or skin sensitisation	Skin Sensitization Negative	
	i) STOT-repeated exposure	No Observed Adverse Effect Level 1000.00	
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
xylene	a) acute toxicity	LD50 Oral Rat = 3523.00 ml/Kg	
		LC50 Inhalation Vapour Rabbit = 26.00 mg/l 4h	
		LD50 Skin Rat = 4350.00 mg/kg	
ethylbenzene	a) acute toxicity	LD50 Oral Rat = 3500.00 mg/kg	
		LC50 Inhalation Mouse = 1432.00 Ppm	
		LD50 Skin Rabbit = 17.80 ml/Kg	
	b) skin corrosion/irritation	Skin Irritant Rabbit Positive 24h	
	c) serious eye damage/irritation	Eye Irritant Rabbit Yes	
	f) carcinogenicity	Genotoxicity Negative 24h	Mouse oral route
	g) reproductive toxicity	No Observed Adverse Effect Level Inhalation Rat = 100.00	ppm

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
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	EINECS: 919-857-5	a) Aquatic acute toxicity : LL50 Fish Oncorhynchus mykiss = 10.00 mg/L 96h
		a) Aquatic acute toxicity : EL50 Daphnia Daphnia magna = 4.50 mg/L 48h
		b) Aquatic chronic toxicity : NOELR Daphnia Daphnia magna = 2.60 mg/L - 21days
		a) Aquatic acute toxicity : NOELR Algae Pseudokirchnerella subcapitata = 0.50 mg/L 72h
titanium dioxide	CAS: 13463-67-7 - EINECS: 236-675-5 - INDEX: 022-006-00-2	a) Aquatic acute toxicity : LC50 Fish Pimephales promelas (Cavedano americano) > 1000.00 mg/L 96h
		a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata (alghe clorofiсee) > 100.00 mg/L 72h
		a) Aquatic acute toxicity : NOEC Algae = 5600.00 mg/L
		a) Aquatic acute toxicity : EC50 Daphnia |Daphnia magna (Pulce d'acqua grande) > 100.00 mg/L 48h
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
ethylbenzene	CAS: 100-41-4 - EINECS: 202-849-4 - INDEX: 601-023-00-4	a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 4.20 mg/L 96h
		a) Aquatic acute toxicity : LC50 Daphnia Daphnia magna = 1.80 mg/L 48h
		b) Aquatic chronic toxicity : NOEC Daphnia Ceriodaphnia dubia = 1.00 mg/L - 7days
		a) Aquatic acute toxicity : EC50 Algae Selenastrum capricornutum = 3.60 mg/L 96h
		c) Bacteria toxicity : EC50 > 96.00 mg/L 24h
		d) Terrestrial toxicity : LC50 Worm Eisenia fetida = 4.93 µg/L 48h OECD TG 207

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
ethylbenzene	Readily biodegradable	CO2 production		

12.3. Bioaccumulative potential

Component	Bioaccumulation	Test	Value	Notes
xylene	Bioaccumulative	BCF - Bioconcentrantion factor	25.900	
ethylbenzene	Bioaccumulative	BCF - Bioconcentrantion	110.000	L/kg ww

factor

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

No PBT/vPvB Ingredients are present

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. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

A waste code according to European waste catalogue (EWC) 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

14.1. UN number or ID number

1263

14.2. UN proper shipping name

ADR-Shipping Name: PAINT

IATA-Technical name: PAINT

IMDG-Technical name: PAINT

14.3. Transport hazard class(es)

ADR-Class: 3

IATA-Class: 3

IMDG-Class: 3

14.4. Packing group

ADR-Packing Group: III

IATA-Packing group: III

IMDG-Packing group: III

14.5. Environmental hazards

Marine pollutant: No

Environmental Pollutant: No

IMDG-EMS: F-E, S-E

14.6. Special precautions for user

Road and Rail (ADR-RID) :

ADR-Label: 3

ADR - Hazard identification number: -

ADR-Special Provisions: 163 367 650

ADR-Transport category (Tunnel restriction code): 3 (E)

ADR Limited Quantities: 5 L

ADR Excepted Quantities: E1

Air (IATA) :

IATA-Passenger Aircraft: 355

IATA-Cargo Aircraft: 366

IATA-Label: 3

IATA-Subsidiary hazards: -

IATA-Erg: 3L

IATA-Special Provisioning: A3 A72 A192

Sea (IMDG) :

IMDG-Stowage Code: Category A

IMDG-Stowage Note: -

IMDG-Subsidiary hazards: -

IMDG-Special Provisioning: 163 223 367 955

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: 3, 40

Restrictions related to the substances contained: 75

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

Seveso III category according to Annex 1, part 1	Lower-tier threshold (tonnes)	Upper-tier threshold (tonnes)
Product belongs to category: P5c	5000	50000

Regulation (EU) 649/2012 (PIC regulation):

No Substance Listed

German Water Hazard Class.

Class 1: slightly hazardous for water.

SVHC Substances:

No data available

Dir. 2004/42/EC (VOC directive)

(ready to use)

Volatile Organic compounds - VOCs = 19.33 %

Volatile Organic compounds - VOCs = 317.08 g/L

KERADECOR SINTOLITE (not ready to use)

Volatile Organic compounds - VOCs = 15.31 %

Volatile Organic compounds - VOCs = 267.98 g/L

15.2. Chemical safety assessment

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

SECTION 16: Other information

Code	Description
EUH066	Repeated exposure may cause skin dryness or cracking.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.

H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Code	Hazard class and hazard category	Description
2.6/2	Flam. Liq. 2	Flammable liquid, Category 2
2.6/3	Flam. Liq. 3	Flammable liquid, Category 3
3.1/4/Dermal	Acute Tox. 4	Acute toxicity (dermal), Category 4
3.1/4/Inhal	Acute Tox. 4	Acute toxicity (inhalation), Category 4
3.1/4/Oral	Acute Tox. 4	Acute toxicity (oral), Category 4
3.10/1	Asp. Tox. 1	Aspiration hazard, Category 1
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/2	Eye Irrit. 2	Eye irritation, Category 2
3.6/2	Carc. 2	Carcinogenicity, Category 2
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3
3.9/2	STOT RE 2	Specific target organ toxicity — repeated exposure, Category 2
4.1/C3	Aquatic Chronic 3	Chronic (long term) aquatic hazard, category 3

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
2.6/3	On basis of test data

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
- 2. HAZARDS IDENTIFICATION
- 3. COMPOSITION/INFORMATION ON INGREDIENTS
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 9. PHYSICAL AND CHEMICAL PROPERTIES
- 11. TOXICOLOGICAL INFORMATION
- 12. ECOLOGICAL INFORMATION
- 13. DISPOSAL CONSIDERATIONS
- 15. REGULATORY INFORMATION

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
Xylene, Mixed Isomers

Exposure Scenario, 14/10/2022

Substance identity	
	Xylene, Mixed Isomers
CAS No.	1330-20-7
INDEX No.	601-022-00-9
EINECS No.	215-535-7
Registration number	01-2119488216-32

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1. ES 1 Widespread use by professional workers

1.1 TITLE SECTION

Exposure Scenario name	Professional application of coatings and inks
Date - Version	14/10/2022 - 1.0
Life Cycle Stage	Widespread use by professional workers
Main user group	Professional uses
Sector(s) of use	Professional uses (SU22)

Environment Contributing Scenario	
CS1	ERC8a - ERC8d

Worker Contributing Scenario	
CS2 Material transfers	PROC8a
CS3 Rolling, Brushing	PROC10
CS4 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

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: 300 days per year

Conditions and measures related to sewage treatment plant

STP type:
Onsite Sewage Treatment Plant

STP effluent (m^3/day): 2000

Conditions and measures related to treatment of waste (including article waste)

Waste treatment
External treatment and disposal of waste should comply with applicable local and/or national regulations.

Other conditions affecting environmental exposure

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

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:
= 500 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 daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures
Use in closed process
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.

Other conditions affecting worker exposure

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:
= 500 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 daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures
Provide a good standard of controlled ventilation (10 to 15 air changes per hour).

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

Personal protection
Wear suitable gloves tested to EN374.
Wear a respirator conforming to EN140.

Other conditions affecting worker exposure

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

1.2. CS4: Worker Contributing Scenario: Roller, spreader, flow application (PROC11)

Process Categories	Non industrial spraying (PROC11)

Product (article) characteristics

Physical form of product:
Liquid

Vapour pressure:
= 500 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 daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures

Carry out in a vented booth provided with laminar airflow.

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

Personal protection

Wear suitable gloves tested to EN374.

Other conditions affecting worker exposure

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)
freshwater	= 0.0015 mg/L	N/A	= 0.005
marine water	= 0.000145 mg/L	N/A	< 0.001
freshwater sediment	= 0.016 mg/kg wet weight	N/A	= 0.006
marine sediment	= 0.0156 mg/kg wet weight	N/A	< 0.001
soil	= 0.0117 mg/kg wet weight	N/A	= 0.006
Sewage treatment plant	= 0.00866 mg/L	N/A	= 0.001

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	= 14 ppm	N/A	= 0.79
dermal, systemic, long-term	= 13.71 mg/kg bw/day	N/A	= 0.08
combined routes	N/A	N/A	= 0.87

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	= 3 ppm	N/A	= 0.17
dermal, systemic, long-term	= 27.43 mg/kg bw/day	N/A	= 0.15
combined routes	N/A	N/A	= 0.32

1.3. CS4: 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	= 5 ppm	N/A	= 0.28
dermal, systemic, long-term	= 13.71 mg/kg bw/day	N/A	= 0.08
combined routes	N/A	N/A	= 0.29

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
Naphtha (petroleum), hydrotreated heavy

Exposure Scenario, 08/06/2021

Substance identity	
	Naphtha (petroleum), hydrotreated heavy
CAS No.	64742-48-9
INDEX No.	649-327-00-6
EINECS No.	265-150-3

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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
Date - Version	12/05/2021 - 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	ERC8a - ERC8d

Worker Contributing Scenario

CS2 Equipment cleaning and maintenance - Rolling, Brushing - Material transfers	PROC8a - PROC10 - 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

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

1.2. CS2: Worker Contributing Scenario: Equipment cleaning and maintenance - Rolling, Brushing - Material transfers (PROC8a, PROC10, PROC11)

Process Categories	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities - Roller application or brushing - Non industrial spraying (PROC8a, PROC10, PROC11)

Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).
Do not ingest.

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

Personal protection

Wear suitable gloves tested to EN374.
Wear suitable face shield.
Wear an impervious suit.

Other conditions affecting worker exposure

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

1.3 Exposure estimation and reference to its source

N/A

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.