Safety Data Sheet
Conforms to Regulation (EC) No. 1907/2006 (REACH), Article 31, Annex II, as amended by Commission Regulation (EU) 2020/878
HYPER SEAL
Date of first edition: 5/12/2023
Safety Data Sheet dated 5/12/2023
version 1

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

1.1. Product identifier

Mixture identification:

Trade name: HYPER SEAL

Trade code: K50475

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

Recommended use: Adhesives, sealants

Uses advised against: All uses other than recommended ones

1.3. Details of the supplier of the safety data sheet

Company: KERAKOLL France
25, avenue de l'Industrie - 69960 Corbas - France
Tel. +33 472 890 684
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)

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:

EUH208 Contains Butan-2-one O,O',O''-(methylsilylidyne)trioxime. May produce an allergic reaction.
EUH208 Contains N-(3-(trimethoxysilyl)propyl)ethylenediamine. May produce an allergic reaction.
EUH208 Contains Butan-2-one O,O',O''-(vinylsilylidyne)trioxime. May produce an allergic reaction.
EUH208 Contains 2-octyl-2H-isothiazol-3-one. May produce an allergic reaction.
EUH210 Safety data sheet available on request.

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: HYPER SEAL

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

Qty	Name	Ident. Numb.	Classification	Registration Number
2,5-4,9 %	Hydrocarbons, C13-C23, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics	EC:932-078-5	Asp. Tox. 1, H304	01-2119552497-29
< 1 %	Butan-2-one O,O',O''-(methylsilylidyne)trioxime	CAS:22984-54-9 EC:245-366-4	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT RE 2, H373	01-2119970560-38
< 0,5 %	N-(3-(trimethoxysilyl)propyl) ethylenediamine	CAS:1760-24-3 EC:217-164-6	Eye Dam. 1, H318; Skin Sens. 1, H317; Acute Tox. 4, H332	01-2119970215-39
< 0,5 %	Butan-2-one O,O',O''-(vinylsilylidyne)trioxime	CAS:2224-33-1 EC:218-747-8	Skin Sens. 1B, H317; STOT RE 2, H373; Eye Dam. 1, H318	01-2119970537-27
< 0,0015 %	2-octyl-2H-isothiazol-3-one	CAS:26530-20-1 EC:247-761-7 Index:613-112-00-5	Acute Tox. 2, H330 Acute Tox. 3, H311 Acute Tox. 3, H301 Skin Corr. 1, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Corrosive to the respiratory tract., M-Chronic:100, M-Acute:100 Specific Concentration Limits: C ≥ 0.0015%: Skin Sens. 1A H317 Acute Toxicity Estimate: ATE - Oral: 125mg/kg bw ATE - Dermal: 311mg/kg bw	

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, 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

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	Notes
Limestone	NATIONAL	BELGIUM		10.000				
	NATIONAL	HUNGARY		10.000				
	NATIONAL	SPAIN		10.000				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	CROATIA		10.000				
	NATIONAL	FRANCE		10.000				
	NATIONAL	NETHERLANDS		10.000				

	NATIONAL	PORTUGAL	10.000				
Dimethyl siloxane	NATIONAL	ROMANIA	60.000		80.000		
Carbon black	NATIONAL	AUSTRALIA	3.000				
	NATIONAL	BELGIUM	3.000				
	NATIONAL	DENMARK	3.500		7.000		
	NATIONAL	FINLAND	3.500		7.000		
	NATIONAL	FRANCE	3.500				
	NATIONAL	IRELAND	3.500		7.000		
	NATIONAL	SPAIN	3.500				
	NATIONAL	SWEDEN	3.000				
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	3.500		7.000		
	NATIONAL	CROATIA	3.500		7.000		
	NATIONAL	GREECE	3.500		7.000		
	NATIONAL	PORTUGAL	3.000				
	ACGIH	NNN	3.000				(I), A3 - Bronchitis
toluene	EU	NNN	192	50	384	100	Skin
	NATIONAL	AUSTRIA	190.000	50.000	380.000	100.000	
	NATIONAL	BELGIUM	77.000	20.000	384.000	100.000	
	NATIONAL	DENMARK	94.000	25.000	188.000	50.000	
	NATIONAL	FINLAND	81.000	25.000	380.000	100.000	
	NATIONAL	FRANCE	76.800	20.000	384.000	100.000	
	NATIONAL	GERMANY	190.000	50.000	760.000	200.000	AGS;
	NATIONAL	GERMANY	190.000	50.000	760.000	200.000	DFG
	NATIONAL	HUNGARY	190.000		380.000		
	NATIONAL	IRELAND	192.000	50.000	384.000	100.000	
	NATIONAL	ITALY	192.000	50.000			Cute
	NATIONAL	LATVIA	50.000	14.000	150.000	40.000	
	NATIONAL	POLAND	100.000		200.000		Dz. U. 2018 poz. 1286 wraz z późn. zm
	NATIONAL	ROMANIA	192.000	50.000	384.000	100.000	
	NATIONAL	SPAIN	191.000	50.000	384.000	100.000	
	NATIONAL	SWEDEN	192.000	50.000	384.000	100.000	
	NATIONAL	SWITZERLAND	190.000	50.000	760.000	200.000	
	NATIONAL	NETHERLANDS	150.000		384.000		
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	191.000	50.000	384.000	100.000	
	NATIONAL	BULGARIA	192.000	50.000	384.000	100.000	
	NATIONAL	CZECHIA	200.000		500.000		
	NATIONAL	CROATIA	192.000	50.000	384.000	100.000	
	NATIONAL	ESTONIA	192.000	50.000	384.000	100.000	
	NATIONAL	GREECE	192.000	50.000	384.000	100.000	
	NATIONAL	LITHUANIA	192.000	50.000	384.000	100.000	
	NATIONAL	PORTUGAL		20.000			
	NATIONAL	SLOVAKIA	192.000	50.000	384.000	100.000	

	NATIONAL	SLOVENIA	192.000	50.000	384.000	100.000	
	ACGIH	NNN		20.000			A4, BEI - Visual impair, female repro, pregnancy loss
	EU	NNN	192.000	50.000	384.000	100.000	Skin
methanol	EU	NNN	260	200			Skin
	NATIONAL	AUSTRIA	260.000	200.000	1040.000	800.000	
	NATIONAL	BELGIUM	266.000	200.000	333.000	250.000	Additional indication "D" means that the absorption of the agent through the skin, mucous membranes or eyes is an important part of the total exposure. It can be the result of both direct contact and its presence in the air
	NATIONAL	DENMARK	260.000	200.000	328.000	250.000	
	NATIONAL	FINLAND	270.000	200.000	330.000	250.000	
	NATIONAL	FRANCE	260.000	200.000			Bold type: Restrictive statutory limit values Skin
	NATIONAL	GERMANY	270.000	200.000	1080.000	800.000	AGS
	NATIONAL	GERMANY	130.000	100.000	260.000	200.000	DFG
	NATIONAL	HUNGARY	260.000				
	NATIONAL	IRELAND	260.000	200.000			
	NATIONAL	ITALY	260.000	200.000			Cute
	NATIONAL	LATVIA	260.000	200.000			
	NATIONAL	POLAND	100.000		300.000		
	NATIONAL	ROMANIA	260.000	200.000			
	NATIONAL	SPAIN	266.000	200.000	333.000	250.000	
	NATIONAL	SWEDEN	250.000	200.000	350.000	250.000	
	NATIONAL	SWITZERLAND	260.000	200.000	1040.000	800.000	
	NATIONAL	NETHERLANDS	133.000				
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	266.000	200.000	333.000	250.000	
	NATIONAL	ITALY	262.000	200.000	328.000	250.000	TWA
	NATIONAL	ITALY	260.000	200.000	1040.000	800.000	TLV
	NATIONAL	BULGARIA	260.000	200.000			
	NATIONAL	CZECHIA	250.000		1000.000		
	NATIONAL	CROATIA	260.000	200.000			
	NATIONAL	ESTONIA	250.000	200.000	350.000	250.000	
	NATIONAL	GREECE	260.000	200.000	325.000	250.000	
	NATIONAL	IRELAND	260.000	200.000			
	NATIONAL	LITHUANIA	260.000	200.000			
	NATIONAL	PORTUGAL		200.000		250.000	
	ACGIH	NNN		200.000		250.000	Skin, BEI - Headache, eye dam, dizziness, nausea
	EU	NNN	260.000	200.000			Skin
2-octyl-2H-isothiazol-3-one	NATIONAL	AUSTRIA	0.050		0.050		Long term and short term: inhalable aerosol
	NATIONAL	GERMANY	0.050		0.100		AGS; Long term and short term: inhalable aerosol
	NATIONAL	GERMANY	0.050		0.100		DFG: Long term and short term: inhalable aerosol

NATIONAL	SWITZERLAND	0.050	0.100	Long term and short term: inhalable aerosol
NATIONAL	SLOVENIA	0.050	0.100	Long term and short term: inhalable fraction

Predicted No Effect Concentration (PNEC) values

Component	CAS-No.	PNEC Limit	Exposure Route	Exposure Frequency
Butan-2-one O,O',O''-(methylsilylidyne)trioxime	22984-54-9	18.450 µg/l	Freshwater	
		1.845 µg/l	Marine water	
		3.900 mg/l	Microorganisms in sewage treatments	
		557.543 mg/kg	Freshwater sediments	
		55.754 mg/kg	Marine water sediments	
		65.630 mg/kg	Soil	
		3.220 mg/kg	Secondary poinsoning	
N-(3-(trimethoxysilyl)propyl) ethylenediamine	1760-24-3	62.000 µg/l	Freshwater	
		620.000 µg/l	Intermittent releases (freshwater)	
		6.200 µg/l	Marine water	
		25.000 mg/l	Microorganisms in sewage treatments	
		220.000 µg/kg	Freshwater sediments	
		22.000 µg/kg	Marine water sediments	
		8.500 µg/kg	Soil	
2-octyl-2H-isothiazol-3-one	26530-20-1	2.200 µg/l	Freshwater	
		1.220 µg/l	Intermittent releases (freshwater)	
		220.000 ng/L	Marine water	
		122.000 ng/L	Intermittent releases (marine water)	
		47.500 µg/kg	Freshwater sediments	
		47.500 µg/kg	Marine water sediments	
		8.200 µg/kg	Soil	

Derived No Effect Level (DNEL) values

Component	CAS-No.	Worker Industry	Worker Professional	Consumer	Exposure Route	Exposure Frequency
Butan-2-one O,O',O''-(methylsilylidyne)trioxime	22984-54-9		1.020 mg/m³	250.000 µg/m³	Human Inhalation	Long Term, systemic effects
			145.000 µg/kg	72.500 µg/kg	Human Dermal	Long Term, systemic effects
				72.500 µg/kg	Human Oral	Long Term, systemic effects
N-(3-(trimethoxysilyl)propyl) ethylenediamine	1760-24-3		260.000 mg/m³	50.000 mg/m³	Human Inhalation	Long Term, systemic effects
			260.000 mg/m³	50.000 mg/m³	Human Inhalation	Short Term, systemic effects
			600.000 µg/m³	100.000 µg/m³	Human Inhalation	Long Term, local effects
			5.360 mg/m³	4.000 mg/m³	Human Inhalation	Short Term, local effects

	8.000 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

Color: In compliance with the product description

Odour: Characteristic

Odour threshold: N.A.

pH: N.A.

Kinematic viscosity: N.A.

Melting point / freezing point: N.A.

Initial boiling point and boiling range: N.A.

Flash point: > 280 °C (536 °F)

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

Vapour density: N.A.

Vapour pressure: N.A.

Relative density: 1.45 g/cm3

Solubility in water: N.A.

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 = 0.04 % ; 0.61 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:

Butan-2-one O,O',O''-(methylsilylidyne)trioxime	a) acute toxicity	LD50 Skin Rat > 2000.00 mg/kg	
		LD50 Oral Rat = 2463.00 mg/kg	
		LC50 Inhalation Vapour Rat = 28.10 mg/l 4h	
N-(3-(trimethoxysilyl)propyl) ethylenediamine	a) acute toxicity	LD50 Oral Rat = 2295.00 mg/kg	
		LC50 Inhalation of aerosol Rat > 1.49 mg/l 4h	<2.44 mg/l
		LD50 Skin Rabbit > 2000.00 mg/kg 24h	
	b) skin corrosion/irritation	Skin Irritant Rabbit Negative	
	c) serious eye damage/irritation	Eye Irritant Rabbit Yes	
	d) respiratory or skin sensitisation	Skin Sensitization Guineapig Positive	
	f) carcinogenicity	Genotoxicity Negative	Mouse intraperitoneal rout
	g) reproductive toxicity	No Observed Adverse Effect Level Oral Rat = 500.00 mg/kg	
2-octyl-2H-isothiazol-3-one	a) acute toxicity	ATE - Oral : 125 mg/kg bw	
		ATE - Dermal : 311 mg/kg bw	
		LD50 Oral Rat = 125.00 mg/kg	
		LC50 Inhalation Mist Rat = 0.27 mg/l 4h	
		LD50 Skin Rabbit = 311.00000 mg/kg	
	b) skin corrosion/irritation	Skin Irritant Rabbit Positive	
	c) serious eye damage/irritation	Eye Irritant Rabbit Yes	
	d) respiratory or skin sensitisation	Skin Sensitization Guineapig Positive	

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
Butan-2-one O,O',O''-(methylsilylidyne)trioxime	CAS: 22984-54-9 - EINECS: 245-366-4	a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss > 120.00 mg/L 96h OECD 203
		a) Aquatic acute toxicity : LC50 Daphnia Daphnia magna > 120.00 mg/L 48h OECD 202
		a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata = 94.00 mg/L 72h OECD 201
N-(3-(trimethoxysilyl)propyl) ethylenediamine	CAS: 1760-24-3 - EINECS: 217-164-6	a) Aquatic acute toxicity : LC50 Fish Danio rerio = 597.00 mg/L 96h
		a) Aquatic acute toxicity : LC50 Daphnia Daphnia magna = 81.00 mg/L 48h
		b) Aquatic chronic toxicity : NOEC Daphnia Daphnia magna >= 1.00 ppm - 21days
		a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata = 8.80 mg/L 72h
		c) Bacteria toxicity : EC50 Pseudomonas putida = 67.00 mg/L
		d) Terrestrial toxicity : LC50 Worm Eisenia foetida > 1000.00 mg/kg - 14days
2-octyl-2H-isothiazol-3-one	CAS: 26530-20-1 - EINECS: 247-761-7 - INDEX: 613-112-00-5	a) Aquatic acute toxicity : LC50 Fish freshwater fish = 0.12200 mg/L dossier ECHA
		b) Aquatic chronic toxicity : EC10 Fish = 0.02200 mg/L dossier ECHA
		a) Aquatic acute toxicity : EC50 freshwater invertebrates = 0.18100 mg/L dossier ECHA
		b) Aquatic chronic toxicity : EC10 freshwater invertebrates = 0.03500 mg/L dossier ECHA
		LC50 Algae freshwater algae = 0.15000 mg/L

12.2. Persistence and degradability

Component	Persitence/Degradability:	Test	Value	Notes
N-(3-(trimethoxysilyl)propyl) ethylenediamine	Non-readily biodegradable	Dissolved organic carbon	39.000	28days
2-octyl-2H-isothiazol-3-one	Non-readily biodegradable			

12.3. Bioaccumulative potential

Component	Bioaccumulation	Test	Value	Notes
2-octyl-2H-isothiazol-3-one	Bioaccumulative	BCF - Bioconcentrantion factor	19.210	L/kg ww

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. 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

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: 40, 48, 52, 69, 70, 75

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

N.A.

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

No Substance Listed

German Water Hazard Class.

Class 3: extremely hazardous.

SVHC Substances:

No data available

15.2. Chemical safety assessment

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

SECTION 16: Other information

Code	Description
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.

Code	Hazard class and hazard category	Description
3.1/4/Inhal	Acute Tox. 4	Acute toxicity (inhalation), Category 4
3.10/1	Asp. Tox. 1	Aspiration hazard, Category 1
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/1	Eye Dam. 1	Serious eye damage, Category 1
3.3/2	Eye Irrit. 2	Eye irritation, Category 2
3.4.2/1	Skin Sens. 1	Skin Sensitisation, Category 1
3.4.2/1B	Skin Sens. 1B	Skin Sensitisation, Category 1B
3.9/2	STOT RE 2	Specific target organ toxicity — repeated exposure, 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.

Exposure Scenario
N-(3-(trimethoxysilyl)propyl)ethylenediamine

Exposure Scenario, 12/01/2022

Substance identity	
	N-(3-(trimethoxysilyl)propyl)ethylenediamine
CAS No.	1760-24-3
EINECS No.	217-164-6

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
Date - Version	12/01/2022 - 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	ERC8c - ERC8f

Worker Contributing Scenario

CS2 Rolling, Brushing - Roller, spreader, flow application - Manual	PROC10 - PROC11 - PROC19

1.2 Conditions of use affecting exposure

1.2. CS1: Environment Contributing Scenario (ERC8c, ERC8f)

Environmental release categories	Widespread use leading to inclusion into/onto article (indoor) - Widespread use leading to inclusion into/onto article (outdoor) (ERC8c, ERC8f)

Product (article) characteristics

Physical form of product:
Liquid

Concentration of substance in product:
Covers percentage substance in the product up to 5 %.

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

Amounts used:
Daily amount per site <= 1.37 kg/day
Annual site tonnage <= 0.5 tonnes/day

Emission days: 365 days per year

Technical and organisational conditions and measures

Control measures to prevent releases
Prevent discharge of undissolved substance to or recover from onsite wastewater.

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

Waste treatment
Dispose of solid residue according to applicable regulations.

1.2. CS2: Worker Contributing Scenario: Rolling, Brushing - Roller, spreader, flow application - Manual (PROC10, PROC11, PROC19)

Process Categories	Roller application or brushing - Non industrial spraying - Manual activities involving hand contact (PROC10, PROC11, PROC19)

Product (article) characteristics

Physical form of product:
Liquid

Concentration of substance in product:
Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use/exposure

Amounts used:

Annual site tonnage <= 0.5 t(onnes)/year
Daily amount per site <= 1.37 kg/day

Duration:

Covers daily exposures up to 8 hours

Frequency:

Covers use up to <= 5 days per week

Technical and organisational conditions and measures

Technical and organisational measures

Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan.

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

Personal protection

Wear suitable gloves tested to EN374.
Wear suitable coveralls to prevent exposure to the skin.

1.3 Exposure estimation and reference to its source

1.3. CS1: Environment Contributing Scenario (ERC8c, ERC8f)

Release route	Release rate	Release estimation method
Air	0.17 kg/day	N/A
Water	0.011 kg/day	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.