

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

1.1. Product identifier

Mixture identification:

Trade name: RASCO 1K KMB klassisch Trade code: 9050632 UFI: DG10-S0GX-800C-2RPP

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

Recommended use: Water-borne bitumen

Uses advised against: Data not available

1.3. Details of the supplier of the safety data sheet

Company: Rasco Bitumentechnik GmbH, Otto-von-Guericke-Ring 11, D-65205 Wiesbaden, Germany phone: +49-05237 608 0 - fax: +49-05237 608 210 (office hours)

Responsible: rasco@bitumentechnik.de 1.4. Emergency telephone number

Poison emergency call Berlin +4930 30686700 (Advice in German and English)

SECTION 2: Hazards identification



2.1. Classification of the substance or mixture

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

Skin Sens. 1A May cause an allergic skin reaction.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

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

Pictograms and Signal Words



Hazard statements:

H317

May cause an allergic skin reaction.

Precautionary statements:

Avoid breathing mist/vapours/spray.
Wear protective gloves/clothing and eye/face protection.
If skin irritation or rash occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
Dispose of contents/container in accordance with applicable regulations.

Contains:

2-octyl-2H-isothiazol-3-one

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

This product contains crystalline silica (quartz sand). IARC has classified crystalline silica as a Group 1 carcinogen. Both IARC and NTP consider silica as a known human carcinogen. Evidence is based on the chronic and long-term exposure workers have had to respirable sized crystalline silica dust particles. Because this product is in liquid or paste form, it does not pose a dust hazard; therefore, this classification is not relevant. (Note: sanding of the hardened product may create a silica dust hazard)

SECTION 3: Composition/information on ingredients

3.1. Substances

Not Relevant

3.2. Mixtures

Mixture identification: RASCO 1K KMB klassisch

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

Concentration (% w/w)	Name	Ident. Numb.	Classification	Registration Number
≥0.05 - <0.1 %	pentane	CAS:109-66-0 EC:203-692-4 Index:601-006- 00-1	Flam. Liq. 2, H225; Asp. Tox. 1, H304; STOT SE 3, H336; Aquatic Chronic 2, H411	
≥0.01 - <0.016 %	isopentane	CAS:78-78-4 EC:201-142-8 Index:601-006- 00-1	Self-react. G, H224; Flam. Liq. 1, H304; Asp. Tox. 1, H336; STOT SE 3, H411; Aquatic Chronic 2	
≥0.0015 - <0.005 %	ethylene glycol	CAS:107-21-1 EC:203-473-3 Index:603-027- 00-1	Acute Tox. 4, H302; STOT RE 2, H373	01-2119456816-28-xxxx
≥0.0015 - <0.005 %	free crystalline silica (Ø <10 $\mu)$	CAS:14808-60-7 EC:238-878-4	STOT RE 1, H372	
≥0.0015 - <0.005 %	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: $C \ge 0,0015\%$: Skin Sens. 1A H317	7
			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:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose of safely.

In case of eyes contact:

Wash immediately with water.

In case of Ingestion:

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

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

Not available

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

(see paragraph 4.1)

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO2).

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.

5.3. Advice for firefighters

Use suitable breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

6.2. Environmental precautions

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

Limit leakages with earth or sand.

6.3. Methods and material for containment and cleaning up

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

Retain contaminated washing water and dispose it.

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.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.

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

List of components with OEL value

Component	OEL Type	Country	Ceiling	Long Term mg/m3	Long Term ppm	Short Term mg/m3	Short Term ppm	Behaviour	Note
pentane	Nationa	I SWEDEN		1800	600	2000	750		
	National	I NORWAY		750	250				
	Nationa	I SWEDEN		1800	600	2000	750		
	EU	None		3000	1000				
	Nationa	I NORWAY		1500	500	3000	1000		
	ACGIH	None			1000				Narcosis, resp tract irr
	Nationa	I NORWAY		1500	500	3000	1000		
	DFG	GERMANY	С			6000	2000		
	ACGIH				1000				narcosis and respiratory tract irritation (listed under Pentane, all isomers)
	National	I SWEDEN		1800	600				

EU			3000	1000			Indicative	
National	FRANCE		3000	1000				
National	SPAIN		3000	1000				
National	GREECE		2950	1000	2950	1000		
National	DENMARK		1500	500				
	FINLAND		1500	500	1900	630		
	GERMANY		3000	1000				
	PORTUGAL		3000	1000				
	NORWAY		750	250	937,5	312,5		
	BELGIUM		1800	600	2250	750		
	POLAND		3000	000	2230	, 50		
	SWITZERLAND		5000		3600	1200		
	NETHERLANDS		1800		5000	1200		
National			2000					
	REPUBLIC		2000					
National	HUNGARY		2950					
National	ESTONIA		3000	1000				
National	LATVIA		3000	1000				
National	CZECH REPUBLIC	С			4500			
	SLOVAKIA		3000	1000				
	SLOVENIA		3000	1000				
National			1800	600	5400	1800		
	BULGARIA		3000,0	1000				
	ROMANIA		3000	1000				
	TURKEY		3000	1000				
	LITHUANIA		3000	1000				
	CROATIA		3000	1000				
	SLOVENIA		3000	1000	6000	2000		
	SWEDEN		1800	600	2000	750		SWEDEN, Short-term value,
	0							15 minutes average value
National	NORWAY		750	250				
EU	None		3000	1000				
National	NORWAY		1500	500	3000	1000		
ACGIH	None			1000				Narcosis, resp tract irr
DFG	GERMANY	С			6000	2000		
ACGIH				1000				narcosis and respiratory tract irritation (listed under Pentane, all isomers)
National	SWEDEN		1800	600				
EU			3000	1000			Indicative	
National	FRANCE		3000	1000				
National	SPAIN		3000	1000				
National	GREECE		2950	1000				
National	DENMARK		1500	500				
National	FINLAND		1500	500	1900	630		
National	GERMANY		3000	1000				
National	PORTUGAL		3000	1000				
	NORWAY		750	250	937,5	312,5		
National	BELGIUM		1800	600	2250	750		
	POLAND		3000					
	SWITZERLAND				3600	1200		
	NETHERLANDS		1800					

isopentane

	National			3000				
		REPUBLIC						
	National	HUNGARY		3000				
	National	ESTONIA		3000	1000			
	National	LATVIA		3000	1000			
	National	CZECH REPUBLIC	С			4500		
	National	SLOVAKIA		3000	1000			
	National	SLOVENIA		3000	1000			
	National	UNITED KINGDOM		1800	600	5400	1800	
	National	BULGARIA		3000,0	1000			
	National	ROMANIA		3000	1000			
	TUR	TURKEY		3000	1000			
	National	LITHUANIA		3000	1000			
	National	CROATIA		3000	1000			
	National	SLOVENIA		3000	1000	6000	2000	
ethylene glycol	National	SWEDEN		25	10	50	20	SWEDEN, Short-term value, 15 minutes average value
	National	FINLAND		50	20	100	40	FINLAND, hud
		NORWAY		52	20	104	40	NORWAY, H5
		SWEDEN		25	10	50	20	SWEDEN, Short-term value, 15 minutes average value
	EU	None		52	20	104	40	Skin
		NORWAY		10	10	20	20	-
	ACGIH		С			100		(H), A4 - URT and eye irr
		NORWAY	-	26		52		
	DFG	GERMANY	С			52	20	
	ACGIH		-		25	10	50	A4 - Not Classifiable as a Human Carcinogen;upper respiratory tract irritation
	National	SWEDEN		25	10			
		FRANCE		52	20	104	40	
	National			52	20	104	40	
		GREECE		125	50	125	50	
		DENMARK		26	10	120	50	
		DENMARK		10	10			
		FINLAND		50	20	100	40	
		PORTUGAL		52	20	104	40	
		NORWAY		52	20	104	40	
	NDS	POLAND		15	20	101		
		POLAND		10		50		
			С			100		
	CHE	SWITZERLAND	C			52	20	
	NDS	NETHERLANDS		52		104	20	
	NDS	NETHERLANDS		10		104		
		GERMANY		26	10			
	National			50				
	National	HUNGARY		52		104		
		SLOVAKIA		52	20			
		SLOVARIA		52	20	104	40	
	National			10	20	104	40	
	Racional	KINGDOM		10		10 f		

	National	UNITED KINGDOM		10	20	30	40		
	Malaysi a OEL	MALAYSIA	С			100	39,4		
	National	ESTONIA		52	20	104	40		
	National	LATVIA		52	20	104	40		
	National		С			100			
		REPUBLIC							
		SLOVAKIA	С			104			
		CROATIA		52	20	104	40		
	EU			52	20	104	40	Indicative	Possibility of significant uptake through the skin
	National	UNITED KINGDOM		52	20	104	40		
	National	BULGARIA		52	20	104	40		
	National	ROMANIA		52	20	104	40		
	TUR	TURKEY		52	20	104	40		
	National	LITHUANIA		25	10	50	20		
free crystalline silica (Ø <10 μ)	National	SWEDEN		0,100					SWEDEN, respirable aerosol
	National	NORWAY		0,100					K: Chemicals to be treated as carcinogenic.
	NDS	POLAND		2,000					frakcja wdychalna
	NDS	POLAND		0,300					frakcja respirabilna
	National	DENMARK		0,3		0,600			DENMARK, inhalable
									aerosol inhalable aerosol
	National	DENMARK		0,100		0,200			DENMARK, respirable aerosol respirable aerosol
	ACGIH	None		0,025					(R), A2 - Pulm fibrosis, lung cancer
	EU	None		0,025					A2 (R) - Pulm fibrosis, lung cancer
	National	AUSTRIA		0,150					A*
	ACGIH			0,025					A2 - Suspected Human Carcinogen;lung cancer;pulmonary fibrosis
	National	SWEDEN		0,1					
	National	FRANCE		0,1					
	National	SPAIN		0,05					
	National	DENMARK		0,3					
	National	DENMARK		0,1					
	National			0,05					
	National	PORTUGAL		0,025					
	National	NORWAY		0,3		0,9			
	National	NORWAY		0,1		0,9			
		BELGIUM		0,1					
		POLAND		0,1					
		NETHERLANDS		0,075					
	National			0,1					
				0.15					
		HUNGARY		0,15					
	Malaysi a OEL	MALAYSIA		0,1					0.1 mg/m3 TWA (respirable dust)
	National	ESTONIA		0,1					

	National SLOVAKIA			0,1	0,5	
	Nationa	I SLOVENIA		0,1		
	Nationa	I BULGARIA		0,07		
	Nationa	I ROMANIA		0,1		
	Nationa	I LITHUANIA		0,1		
	Nationa	I CROATIA		0,1		
	Nationa	I ITALY		0,100		
2-octyl-2H-isothiazol-3- one	DFG	GERMANY	С		54	10
	Nationa	I GERMANY		0,05		
	CHE	SWITZERLAND			0,1	
	National SLOVENIA			0,05	0,05	
	DFG	GERMANY	С		0,1	
	Nationa	I SLOVENIA		0,05	0,1	

Predicted No Effect Concentration (PNEC) values

Component	CAS-No.	PNEC Limit	Exposure Route	Exposure Frequency Remark
ethylene glycol	107-21-1	10 mg/l	Fresh Water	
		1 mg/l	Marine water	
		1,53 mg/kg	g Soil	
		37 mg/kg	Freshwater sediments	
		10 mg/l	Intermittent release	
		199,5 mg/l	Microorganisms in sewage treatments	
		3,7 mg/kg	Marine water sediments	

Derived No Effect Level. (DNEL)

Component	CAS-No.	Worker Worke Industr Profes y ional		Exposure Route	Exposure Frequency Remark
ethylene glycol	107-21-1	106 mg/kg	53 mg/kg	Human Dermal	Long Term, systemic effects
			53 mg/kg	Human Oral	Long Term, systemic effects
		35 mg/m3	7 mg/m3	Human Inhalation	Long Term, local 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:

Suitable materials for safety gloves; EN ISO 374:

Polychloroprene - CR: thickness >=0,5mm; breakthrough time >=480min.

Nitrile rubber - NBR: thickness >=0,35mm; breakthrough time >=480min.

Butyl rubber - IIR: thickness >=0,5mm; breakthrough time >=480min.

Fluorinated rubber - FKM: thickness >=0,4mm; breakthrough time >=480min.

Neoprene gloves are suggested (0,5 mm) not recommended gloves: not waterproof gloves

Respiratory protection:

Personal Protective Equipment should comply with relevant CE standards (as EN ISO 374 for gloves and EN ISO 166 for goggles), correctly maintained and stored. Consult the supplier to check the suitability of equipment against specific chemicals and for user information.

Respiratory protection must be used where exposure levels exceed workplace exposure limits. Refer to appropriate EN standards, like EN 136, 140, 143, 149, 14387 for information on selection and use of appropriate respiratory protection equipment.

Hygienic and Technical measures

Not available

Appropriate engineering controls:

SECTION 9: Physical and chemical properties 9.1. Information on basic physical and chemical properties

Physical state: Liquid Appearance: paste Color: Black Odour: Characteristic Odour threshold: Melting point / freezing point: Not available Initial boiling point and boiling range: Not available Flammability: Not available Upper/lower flammability or explosive limits: Not available Flash point: Not available Auto-ignition temperature: Not available Decomposition temperature: Not available pH: 10.20 Viscosity: 300,000.00 cPs Kinematic viscosity: Not available Solubility in water: dispersible Solubility in oil: insoluble Partition coefficient (n-octanol/water): Not available Vapour pressure: Not available Relative density: 0.65 g/cm3 Vapour density: Not available **Particle characteristics:** Particle size: Not available 9.2. Other information

Miscibility: Not available Conductivity: Not available Explosive properties: == No other relevant information

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

- 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 mixture:

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	The product is classified: Skin Sens. 1A(H317)
e) germ cell mutagenicity	Not classified
	Based on available data, the classification criteria are not met

f) carcinogenicity	y	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 e	exposure	Not classified				
		Based on available data, the classification criteria are not met				
i) STOT-repeated	d exposure	Not classified				
		Based on available data, the classification criteria are not met				
j) aspiration haz	ard	Not classified				
		Based on available data, the classification criteria are not met				
Toxicological informati	on on main com	ponents of the mixture:				
pentane	a) acute toxicity	LD50 Skin Rabbit = 3000 mg/kg				
		LC50 Inhalation Rat = 364 g/m3 4h				
		LD50 Oral Rat > 2000 mg/kg				
ethylene glycol	a) acute toxicity	LC50 Inhalation Rat > 2,50000 mg/l 6h				
		LD50 Skin Rat > 3500,00000 mg/kg				
free crystalline silica (Ø	a) acute toxicity	LD50 Oral Rat = 500 mg/kg				
<10 µ)						
2-octyl-2H-isothiazol-3-	a) acute toxicity	ATE - Oral: 125 mg/kg bw				
one						
		ATE - Dermal : 311 mg/kg bw				
		LD50 Oral Rat = 318 mg/kg				
		LD50 Skin Rabbit = 311 mg/kg				
		LC50 Inhalation Dust Rat = $0,58 \text{ mg/l } 4h$				

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

Date

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

Based on available data, the classification criteria are not met

List of components with eco-toxicological properties

Component		Ident. Numb.	Ecotox Infos	
pentane		CAS: 109-66-0 - EINECS: 203-692-4 - INDEX: 601-006- 00-1	a) Aquatic acute toxicity : LC50 Fis	h Oncorhynchus mykiss = 9,87 mg/L 96
			a) Aquatic acute toxicity: LC50 Fis	h Pimephales promelas = 11,59 mg/L 96
			a) Aquatic acute toxicity: LC50 Fis	h Lepomis macrochirus = 9,99 mg/L 96ł
			a) Aquatic acute toxicity: EC50 Da IUCLID	phnia Daphnia magna = 9,74 mg/L 48h
isopentane		CAS: 78-78-4 - EINECS: 201-142-8 - INDEX: 601-006- 00-1	, , ,	phnia Daphnia magna = 2,3 mg/L 48h
ethylene glycol		CAS: 107-21-1 - EINECS: 203-473-3	a) Aquatic acute toxicity: EC50 Da	phnia > 100 mg/L 48
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	- INDEX: 603-027- 00-1	
		a) Aquatic acute toxicity : EC50 Algae > 100 mg/L 96
		a) Aquatic acute toxicity: LC50 Fish > 100 mg/L 96
		b) Aquatic chronic toxicity : NOEC Fish > 100 mg/L - 7 d
		b) Aquatic chronic toxicity : NOEC Daphnia > 100 mg/L - 7 d
		b) Aquatic chronic toxicity : NOEC Algae > 100 mg/L 72
		a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 41000 mg/L $\mbox{\scriptsize S}$ IUCLID
		a) Aquatic acute toxicity: LC50 Fish Oncorhynchus mykiss 14 mL/L 96h EP.
		a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus = 27540 mg/L 9° EPA
		a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 40761 mg/L $\mbox{\scriptsize S}$ IUCLID
		a) Aquatic acute toxicity: LC50 Fish Pimephales promelas 40000 mg/L 96h EPA
		a) Aquatic acute toxicity: LC50 Fish Poecilia reticulata = 16000 mg/L 96h IUCLID
		a) Aquatic acute toxicity: EC50 Daphnia Daphnia magna = 46300 mg/L 48 IUCLID
		a) Aquatic acute toxicity: EC50 Algae Pseudokirchneriella subcapitata 6500 mg/L 96h IUCLID
2-octyl-2H-isothiazol-3-one	CAS: 26530-20-1 - EINECS: 247-761-7 - INDEX: 613-112- 00-5	a) Aquatic acute toxicity : EC50 Daphnia = 0,42 mg/L 48
		a) Aquatic acute toxicity : EC50 Algae = 0,084 mg/L 72
		a) Aquatic acute toxicity : LC50 Fish = 0,036 mg/L 96
		a) Aquatic acute toxicity: LC50 Fish = 0,18 mg/L 96
		b) Aquatic chronic toxicity: NOEC Daphnia = 0,002 mg/L - 21 d
		b) Aquatic chronic toxicity : NOEC Fish = $0,022 \text{ mg/L} - 28 \text{ d}$
		b) Aquatic chronic toxicity : NOEC Algae = 0,004 mg/L 72

12.2. Persistence and degradability

Not available

12.3. Bioaccumulative potential

Not available

12.4. Mobility in soil

Not available

12.5. Results of PBT and vPvB assessment

No PBT, vPvB or endocrine disruptor 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

Not available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Recover if possible.

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

Methods of disposal:

Disposal of this product, solutions, packaging and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor.

Do not dispose of waste into sewers.

Hazardous waste: Yes

Disposal considerations:

Do not allow to enter drains or watercourses.

Dispose of product according to all federal, state and local applicable regulations.

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.

Dispose of containers contaminated by the product in accordance with local or national legal provisions. For further information, contact your local waste authority.

Special precautions:

This material and its container must be disposed of in a safe way. Care should be taken when handling untreated empty containers. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Empty containers or liners may retain some product residues. Do not re-use empty containers.

SECTION 14: Transport information

Not classified as dangerous in the meaning of transport regulations.

14.1. UN number or ID number

Not Applicable

14.2. UN proper shipping name

Not Applicable

14.3. Transport hazard class(es)

Not Applicable

14.4. Packing group

Not Applicable

14.5. Environmental hazards

Not Applicable

14.6. Special precautions for user

Not Applicable

Road and Rail ($\ensuremath{\mathsf{ADR}}\xspace-\ensuremath{\mathsf{RID}}\xspace$) :

Not Applicable

Air (IATA):

Not Applicable

Sea (IMDG) :

Not Applicable

14.7. Maritime transport in bulk according to IMO instruments

Not Applicable

Bitumen based product. When transported at elevated temperature, the product must be considered dangerous for all modes of transport.

SECTION 15: Regulatory information

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

VOC (2004/42/EC) : N.A. g/l 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 (EU) n. 2020/878 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. 2019/521 (ATP 12 CLP) Regulation (EU) n. 2018/1480 (ATP 13 CLP) Regulation (EU) n. 2020/217 (ATP 14 CLP) Regulation (EU) n. 2020/1182 (ATP 15 CLP)

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

Not available

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

Restrictions related to the substances contained: 40, 75

SVHC Substances:

1

No data available

German Water Hazard Class (WGK)

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Code	Description		
H224	Extremely flammable liquid and vapour.		
H225	Highly flammable liquid and vapour.		
H302	Harmful if swallowed.		
H304	May be fatal if swallowed and enters airways.		
H317	May cause an allergic skin reaction.		
H336	May cause drowsiness or dizziness.		
H372	Causes damage to organs through prolonged or repeated exposure.		
H373	May cause damage to organs through prolonged or repeated exposure if swallowed.		
H411	Toxic to aquatic life with long lasting effects.		
Code	Hazard class and hazard category	Description	
2.6/1	Flam. Liq. 1	Flammable liquid, Category 1	
2.6/2	Flam. Liq. 2	Flammable liquid, Category 2	
2.8/G	Self-react. G	Self-reactive substance or mixture, Type G	
3.1/4/Oral	Acute Tox. 4	Acute toxicity (oral), Category 4	
3.10/1	Asp. Tox. 1	Aspiration hazard, Category 1	
3.4.2/1A	Skin Sens. 1A	Skin Sensitisation, Category 1A	
3.8/3	STOT SE 3	Specific target organ toxicity $-$ single exposure, Category 3	
3.9/1	STOT RE 1	Specific target organ toxicity $-$ repeated exposure, Category 1	
3.9/2	STOT RE 2	Specific target organ toxicity $-$ repeated exposure, Category 2	
4.1/C2	Aquatic Chronic 2	Chronic (long term) aquatic hazard, category 2	

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

Classification according to Regulation Classification procedure (EC) Nr. 1272/2008

3.4.2/1A

Calculation method

If appropriate, specific provisions in relation to possible training for workers are mentioned in section 2. Any training related to safety in the workplace must in any case refer to a risk assessment that must be carried out by a company safety officer taking into account the specific operating and environmental conditions in which the products are used.

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 SDS 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 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.

* Sheet model entirely changed in compliance to regulatory update.