

PremFire FR Silicone

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product Name/Identifier

PremFire FR Silicone

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

Sealant.

1.3. Details of the supplier of the safety data sheet

Premier Sealant Systems Ltd.
Mercia Way,
Foxhills Industrial Park,
Scunthorpe,
North Lincolnshire,
DN15 8RE
Tel. 01724 864 100

1.4. Emergency telephone number

NPIS (National Poisons Information Service): 0344 892 0111 (for medical professionals only). For medical advice, members of the public should contact NHS 111 in England: 111; NHS 24 in Scotland: 111; NHS Direct in Wales: 111 or 0845 4647. In Northern Ireland: contact your local GP or pharmacist. In Europe call 112.

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to GB CLP Regulation

Classification of this product has been carried out in accordance with GB CLP Regulation.
Skin Sens. 1B: Sensitisation, skin, Category 1B, H317.

2.2. Label elements

Hazard pictograms



Safety Data Sheet



Signal word

Warning

Hazard statements

H317 - May cause an allergic skin reaction.

Precautionary statements

P101: If medical advice is needed, have product container or label at hand.

P103: Read label before use.

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P280: Wear protective gloves/protective clothing/respiratory protection/eye protection/protective footwear.

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

P501: Dispose of contents/ container in accordance with local/regional/national/international regulation.

Supplemental label information

Contains Butan-2-one O,O',O''-(vinylsilylidyne)trioxime, N-(3-(trimethoxysilyl)propyl)ethylenediamine.

Substances that contribute to the classification

Butan-2-one O,O',O''-(methylsilylidyne)trioxime.

2.3. Other hazards

Product does not meet PBT/vPvB criteria.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable.

3.2. Mixtures

This product is a mixture composed of polymers, dispersants and organic compounds. In accordance with Annex II of The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020, the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 22984-54-9	Butan-2-one O,O',O''-(methylsilylidyne)trioxime Eye Irrit. 2: H319; Skin Sens. 1B: H317; STOT RE 2: H373 - Warning	2,5 - <5 %
CAS: 1760-24-3	N-(3-(trimethoxysilyl)propyl)ethylenediamine Eye Dam. 1: H318; Skin Sens. 1: H317 - Danger	0,1 - <1 %
CAS: 2224-33-1	Butan-2-one O,O',O''-(vinylsilylidyne)trioxime Eye Dam. 1: H318; Skin Sens. 1B: H317; STOT RE 2: H373 - Danger	0,1 - <1 %

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

Other information

Not applicable.

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Registered Office: Mercia Way, Foxhills Industrial Park, Scunthorpe, DN15 8RE | Registered in Cardiff No. 3000843

4. FIRST AID MEASURES

4.1. Description of first aid measures

General information

In all cases of doubt, or if symptoms persist, seek medical attention and show this SDS. Never give anything by mouth to an unconscious person.

Inhalation:	This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.
Ingestion:	In case of consumption, seek immediate medical assistance showing the SDS for the product.
Skin contact:	May cause an allergic skin reaction. In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of changes on the skin (stinging, redness, rashes, blisters), seek medical advice with this Safety Data Sheet.
Eye contact:	Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

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

Acute and delayed effects are indicated in sections 2 and 11.

Notes for the doctor

Not applicable.

Specific treatments

Treat symptomatically.

5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media

Product is non-flammable under normal conditions of storage, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

Unsuitable extinguishing media

Non-applicable.

5.2. Special hazards arising from the substance or mixture

Specific hazards

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3. Advice for firefighters

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit). Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

Special protective equipment for firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves).

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

For emergency responders:

Wear protective equipment. Keep unprotected persons away. See section 8.

6.2. Environmental precautions

This product is not classified as hazardous to the environment. Keep product away from drains, surface and ground water.

Methods and material for containment and cleaning up

It is recommended: Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Usage precautions

A.- General precautions for safe use:

Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and dispose of using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions:

Product is non-flammable under normal conditions of storage, handling and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene:

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks:

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3).

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash their hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

Store in a cool, dry, well-ventilated location. Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5.

Storage class

Not classified.

7.3. Specific end use(s)

Field of application of the product is described in Technical data sheet (TDS).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Substances whose occupational exposure limits have to be monitored in the workplace:

There are no applicable occupational exposure limits for the substances contained in the product

DNEL (Workers)

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Butan-2-one O,O',O''-(methylsilylidyne)trioxime CAS: 22984-54-9 EC: 245-366-4	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	0.145 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	1.02 mg/m ³	Non-applicable
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime CAS: 2224-33-1 EC: 218-747-8	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	0.15 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	1.06 mg/m ³	Non-applicable

DNEL (General population)

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Butan-2-one O,O',O''-(methylsilylidyne)trioxime CAS: 22984-54-9 EC: 245-366-4	Oral	Non-applicable	Non-applicable	0.072 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	0.072 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	0.25 mg/m ³	Non-applicable
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime CAS: 2224-33-1 EC: 218-747-8	Oral	Non-applicable	Non-applicable	0.075 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	0.075 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	0.26 mg/m ³	Non-applicable

Predicted No Effect Concentration

Identification					
Butan-2-one O,O',O''-(methylsilylidyne)trioxime CAS: 22984-54-9 EC: 245-366-4	STP	3.9 mg/L	Fresh water	0.018 mg/L	
	Soil	65.63 mg/kg	Marine water	0.002 mg/L	
	Intermittent	Non-applicable	Sediment (Fresh water)	557.543 mg/kg	
	Oral	0.00322 g/kg	Sediment (Marine water)	55.754 mg/kg	
N-(3-(trimethoxysilyl)propyl)ethylenediamine CAS: 1760-24-3 EC: 217-164-6	STP	25 mg/L	Fresh water	0.062 mg/L	
	Soil	0.009 mg/kg	Marine water	0.006 mg/L	
	Intermittent	0.62 mg/L	Sediment (Fresh water)	0.22 mg/kg	
	Oral	Non-applicable	Sediment (Marine water)	0.022 mg/kg	
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime CAS: 2224-33-1 EC: 218-747-8	STP	4.06 mg/L	Fresh water	0.019 mg/L	
	Soil	133.8 mg/kg	Marine water	0.002 mg/L	
	Intermittent	Non-applicable	Sediment (Fresh water)	1136.562 mg/kg	
	Oral	0.003333 g/kg	Sediment (Marine water)	113.656 mg/kg	

8.2. Exposure controls

Appropriate engineering controls

Appropriate ventilation, emergency shower and eyewash station recommended.

Eye/face protection

Panoramic glasses against splash/projections. Use if there is a risk of splashing.

Hand protection

Protective gloves against minor risks. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN 420:2004+A1:2010 and EN ISO 374-1:2016+A1:2018.

Other skin and body protection

Work clothing - For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994.

Anti-slip work shoes - For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 20345:2012 y EN 13832-1:2007.

Respiratory protection

Filter mask for gases, vapours and particles are mandatory.

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Environmental exposure controls

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

The Volatile Organic Compounds in Paints, Varnishes and Vehicle Refinishing Products Regulations 2012:

V.O.C. (Supply):	1.06 % weight
V.O.C. density at 20 °C:	13.25 kg/m ³ (13.25 g/L).

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Paste
Colour	White
Odour	Not available
Odour threshold	Not available
pH	Not available
Melting point	Not applicable
Initial boiling point and range	191 °C
Flash point	Non Flamable (>60 °C)
Evaporation rate	No information available
Evaporation factor	No information available
Flammability (solid, gas)	No information available
Upper/lower flammability or explosive limits	No information available
Vapour pressure at 20 °C	45 Pa
Vapour pressure at 50 °C	236.81 (0.24 kPa)
Vapour density	No information available
Density at 20°C	1245 kg/m ³

Relative density	1.515
Bulk density	No information available
Solubility(ies)	No information available
Partition coefficient	No information available
Auto-ignition temperature	235 °C
Decomposition Temperature	No information available
Viscosity	No information available
Explosive properties	Not applicable
Oxidising properties	Not applicable
VOC	Not applicable
LEED (2009) VOC	Not applicable

9.2. Other information

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

10.1. Reactivity

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2. Chemical stability

Chemically stable under the indicated conditions of storage, handling and use.

10.3. Possibility of hazardous reactions

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Avoid contact with strong acids, alkalis and strong basis.

10.6. Hazardous decomposition products

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO), carbon monoxide and other organic compounds.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

The experimental information related to the toxicological properties of the product itself is not available. In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

Acute toxicity (Acute oral toxicity)

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for consumption. For more information see section 3.

Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

Acute toxicity (Acute dermal toxicity)

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for skin contact. For more information see section 3.

Acute toxicity (Acute inhalation toxicity)

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for inhalation. For more information see section 3.

Skin Corrosion/Irritation

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for skin contact. For more information see section 3.

Serious Eye Damage/Irritation

Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

Respiratory or Skin Sensitisation

Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.

Skin: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

Germ Cell Mutagenicity

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

Carcinogenicity

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

Reproductive Toxicity

Based on available data, the classification criteria are not met as it does not contain substances classified as hazardous for this effect. For more information see section 3.

Specific target organ toxicity (single exposure)

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

Specific target organ toxicity (repeated exposure)

Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

Aspiration Hazard

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

11.2. Components influencing toxicology

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
	LD50 oral	LD50 dermal	
Butan-2-one O,O',O''-(methylsilylidyne)trioxime CAS: 22984-54-9	LD50 oral	2247 mg/kg	Rat
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>20 mg/L	
N-(3-(trimethoxysilyl)propyl)ethylenediamine CAS: 1760-24-3	LD50 oral	>5000 mg/kg	Rat
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>20 mg/L	
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime CAS: 2224-33-1	LD50 oral	3519 mg/kg	Rat
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>20 mg/L	

Acute Toxicity Estimate (ATE mix):

ATE mix		Ingredient(s) of unknown toxicity
Oral	>5000 mg/kg (Calculation method)	Non-applicable
Dermal	>5000 mg/kg (Calculation method)	Non-applicable
Inhalation	>20 mg/L (4 h) (Calculation method)	Non-applicable

11.3. Information on other hazards

Not information available.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Acute toxicity:

Identification	Concentration		Species	Genus
	LC50	EC50		
N-(3-(trimethoxysilyl)propyl)ethylenediamine CAS: 1760-24-3	LC50	597 mg/L (96 h)	Brachydanio rerio	Fish
	EC50	81 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	8.8 mg/L (72 h)	Selenastrum capricornutum	Algae
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime CAS: 2224-33-1	LC50	55000 mg/L (96 h)	QSAR	Fish
	EC50	17168 mg/L (48 h)	QSAR	Fish
	EC50	1429 mg/L (96 h)	QSAR	Fish

Chronic toxicity:

Identification	Concentration		Species	Genus
	NOEC			
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime CAS: 2224-33-1	NOEC	50 mg/L	Oryzias latipes	Fish
	NOEC	100 mg/L	Daphnia magna	Crustacean

12.2. Persistence and degradability

Identification	Degradability		Biodegradability	
N-(3-(trimethoxysilyl)propyl)ethylenediamine CAS: 1760-24-3	BOD5	Non-applicable	Concentration	Non-applicable
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	39 %
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime CAS: 2224-33-1	BOD5	Non-applicable	Concentration	20 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	0 %

12.3. Bioaccumulative potential

Identification	Bioaccumulation potential	
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime CAS: 2224-33-1	BCF	1
	Pow Log	0.6
	Potential	Low

12.4. Mobility in soil

Not available.

12.1. Results of PBT and vPvB assessment

Product does not meet PBT/vPvB criteria.

12.2. Other adverse effects

Not described.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Code	Description	Waste class
08 04 10*	waste adhesives and sealants other than those mentioned in 08 04 09	Non-Dangerous

Consult the authorized waste service manager on the assessment and disposal operations in accordance The Waste (England & Wales) Regulations 2011, 2011 No. 988. As under 15 01 of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-hazardous residue.

Waste should not be disposed of to drains. See paragraph 6.2.

In accordance with Annex II of UK REACH the provisions related to waste management are stated: UK legislation: The Waste Regulations 2011.

Disposal methods

Dispose of in accordance with local regulations.

13.2. Waste class

Not applicable.

14. TRANSPORT INFORMATION

14.1. Classification for ROAD and Rail transport (ADR/RID)

Not classified.

14.2. Transport by sea GGVSee/IMDG-Code

Not classified.

14.3. Air Transport ICAO-TI/IATA-DGR

Not classified.

15. REGULATORY INFORMATION

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

- Substances listed in UK candidate list of substances of very high concern (SVHCs): Not relevant
- Substances listed in UK REACH Authorisation List (Annex 14): Not relevant.

The Control of Major Accident Hazards Regulations 2015:

Non- applicable.

Restrictions to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII UK REACH, etc.):

Shall not be used in:

- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- tricks and jokes,
- games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

Occupational exposure to respirable crystalline silica must be controlled pursuant to Directive (EU) 2019/130.

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation

The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2020.
Control of Substances Hazardous to Health Regulations 2002 (as amended)
EH40/2005 Workplace exposure limits.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture.

16. OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with ANNEX II-The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.

Texts of the legislative phrases mentioned in section 2:

H317: May cause an allergic skin reaction.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3.

GB CLP Regulation:

Eye Dam. 1: H318 - Causes serious eye damage.
Eye Irrit. 2: H319 - Causes serious eye irritation.
Skin Sens. 1: H317 - May cause an allergic skin reaction.
Skin Sens. 1B: H317 - May cause an allergic skin reaction.
STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure (Oral).

Classification procedure:

Skin Sens. 1B: Calculation method.

Advice related to training:

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Abbreviations and acronyms used in the safety data sheet

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
ATE: Acute Toxicity Estimate.
BCF: Bioconcentration Factor.
CAS: Chemical Abstracts Service.
cATpE: Converted acute toxicity point estimate.
DNEL: Derived No Effect Level.
EC₅₀: 50% of maximal Effective Concentration.
GHS: Globally Harmonized System.

IATA: International Air Transport Association.
IBC: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (International Bulk Chemical Code).
ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.
IMDG: International Maritime Dangerous Goods.
LC50: Lethal Concentration to 50 % of a test population.
LD50: Lethal Dose to 50% of a test population (Median Lethal Dose).
LOAEC: Lowest Observed Adverse Effect Concentration.
LOAEL: Lowest Observed Adverse Effect Level.
LOEC: Lowest Observed Effect Concentration.
MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.
NOAEC: No Observed Adverse Effect Concentration.
NOAEL: No Observed Adverse Effect Level.
NOEC: No Observed Effect Concentration.
PBT: Persistent, Bioaccumulative and Toxic substance.
PNEC: Predicted No Effect Concentration.
REACH: The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020 No. 1577.
RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
SVHC: Substances of Very High Concern.
vPvB: Very Persistent and Very Bioaccumulative.

Classification abbreviations and acronyms

Acute Tox. = Acute toxicity
Aquatic Chronic = Hazardous to the aquatic environment (chronic)
Asp. Tox. = Aspiration hazard
Eye Dam. = Serious eye damage
Flam. Liq. = Flammable liquid
Repr. = Reproductive toxicity
Skin Irrit. = Skin irritation
Skin Sens. = Skin sensitisation
STOT RE = Specific target organ toxicity-repeated exposure
STOT SE = Specific target organ toxicity-single exposure

Key literature references and sources for data

Source: European Chemicals Agency, <http://echa.europa.eu/> SDS from supplier.

Revision comments

Revision date

25/03/2024

Revision

1

Supersedes date

Not applicable

SDS status

Approved.

Safety Data Sheet



This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.