

SAFETY DATA SHEET

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

1.1 Product identifier

Product name : Liquid gasket
Product code : 22618327
Product description : Not available.
Product type : Liquid.
Other means of identification : Nanoform

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

Identified uses

Sealants

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

AB Volvo Penta
SE-405 08 Göteborg
Sweden

+46 (0)31 23 54 60

e-mail address of person responsible for this SDS : sds@volvo.com

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : Call a POISON CENTER or doctor.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Aquatic Chronic 3, H412

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Signal word : No signal word.

Hazard statements : Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention : Avoid release to the environment.

Response : Not applicable.

Storage : Not applicable.

Disposal : Dispose of contents/container as hazardous waste.

SECTION 2: Hazards identification

Supplemental label elements	: Contains 3-aminopropyltriethoxysilane and trimethoxyvinylsilane. May produce an allergic reaction.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

PBT	P	B	T	vPvB	vP	vB
Product - Not applicable				Product - Not applicable		

This mixture contains substances that are assessed to be a PBT or a vPvB, refer to Section 3.2. CAS #: 556-67-2 <0.1%

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Hexamethyldisiloxane	REACH #: 01-2119496108-31 EC: 203-492-7 CAS: 107-46-0	<2.5	Flam. Liq. 2, H225 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	M [Acute] = 1	[1]
Hexamethyldisilazane	REACH #: 01-2119438176-38 EC: 213-668-5 CAS: 999-97-3	<3	Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 3, H311 Acute Tox. 4, H332 Aquatic Chronic 3, H412	ATE [Oral] = 850 mg/kg ATE [Dermal] = 547 mg/kg ATE [Inhalation (vapours)] = 10.1 mg/l	[1]
3-Aminopropyltriethoxysilane	REACH #: 01-2119480479-24 EC: 213-048-4 CAS: 919-30-2	<1	Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317	ATE [Oral] = 1457 mg/kg	[1]
Trimethoxy(vinyl)silane	EC: 220-449-8 CAS: 2768-02-7	<1	Skin Sens. 1, H317	-	[1]
Cyclotetrasiloxane, octamethyl	REACH #: 01-2119529238-36 EC: 209-136-7 CAS: 556-67-2	<0.1	Flam. Liq. 3, H226 Repr. 2, H361f Aquatic Chronic 1, H410 See Section 16 for the full text of the H statements declared above.	M [Chronic] = 10	[1] [2] [3]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

SECTION 3: Composition/information on ingredients

[1] Substance classified with a health or environmental hazard

[2] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[3] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

Occupational exposure limits, if available, are listed in Section 8.

Particle characteristics

Product/ingredient name	Size distribution	Shape and aspect ratio	Crystallinity	Surface functionalization/treatment	Specific surface area	Additional information
Carbon black nanoform	Not available	Not available	Not available	Not available	Not available	Inhalable fraction is Dispersion In a mixture. Component - Not classified as hazardous. (CLP Classification)

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : In case of contact with eyes, rinse immediately with plenty of water. If irritation persists, get medical attention.
- Inhalation** : If inhaled, remove to fresh air. If irritation persists, get medical attention.
- Skin contact** : Wash contaminated skin with soap and water. Get medical attention if irritation develops.
- Ingestion** : Get medical attention. Do not induce vomiting. Wash out mouth with water.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. Refer to protective measures listed in sections 7 and 8.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

- Eye contact** : May cause slight transient irritation. (redness)
- Inhalation** : May cause slight transient irritation.
- Skin contact** : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
Contains small percentage of substances which can cause allergic reactions.
- Ingestion** : Ingestion may cause gastrointestinal irritation and diarrhea.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Recommended:; CO₂, powders, Foam
- Unsuitable extinguishing media** : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

SECTION 5: Firefighting measures

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous combustion products** : Decomposition products may include the following materials:
nitrogen oxides
halogenated compounds
metal oxide/oxides
carbon oxides

5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Refer to protective measures listed in sections 7 and 8.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

- : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

6.3 Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

6.4 Reference to other sections

- : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid release to the environment. Avoid breathing vapor or mist. Empty containers retain product residue and can be hazardous. Do not reuse container. Avoid contact with eyes, skin and clothing. Do not ingest.
- Advice on general occupational hygiene** : 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. Wash contaminated clothing before reuse. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Do not store in unlabeled containers. Keep container tightly closed. Keep container in a cool, well-ventilated area. Store in accordance with local regulations.

7.3 Specific end use(s)

- Recommendations** : Sealants
- Industrial sector specific solutions** : Not available.

SECTION 8: Exposure controls/personal protection

The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available.

8.2 Exposure controls

- Appropriate engineering controls** : Use only with adequate ventilation. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction.

Individual protection measures

- 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.
- Eye/face protection** : Recommended: safety glasses with side-shields.
- Skin protection**
- Hand protection** : For prolonged or repeated handling, use gloves : > 8 hours (breakthrough time): nitrile rubber gloves, > 0.4 mm thickness (EN374).
1 - 4 hours (breakthrough time): Do not use for more than 4 hours nitrile rubber gloves 0.4 mm thickness, > 30 minutes (breakthrough time).

SECTION 8: Exposure controls/personal protection

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Wear suitable protective clothing.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Provide adequate ventilation. Recommended: If ventilation is inadequate, use respirator that will protect against organic vapor and dust/mist. Recommended filter combination: organic vapor filter (Type A)
- Environmental exposure controls** : Do not allow to enter drains or watercourses.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated. Not available = No data has been shared in the distribution chain nor been possible to identify via available databases.

9.1 Information on basic physical and chemical properties

Appearance

- Physical state** : Liquid. [Paste.]
- Color** : Black.
- Odor** : Alcohol-like.
- Odor threshold** : Not available.
- Melting point/freezing point** : $\leq -40^{\circ}\text{C}$
- Initial boiling point and boiling range** : $\geq 100^{\circ}\text{C}$ ($>212^{\circ}\text{F}$)
- Flammability (solid, gas)** : Not available.
- Upper/lower flammability or explosive limits** : Not available.
- Flash point** : Closed cup: $>100^{\circ}\text{C}$ ($>212^{\circ}\text{F}$)
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- pH** : Not applicable. [insoluble in water.]
- Viscosity** : Kinematic (40°C): $>20.5\text{ mm}^2/\text{s}$
- Pour point** : Not available.
- Solubility(ies)** :

Media	Result
cold water	Not soluble
hot water	Not soluble

Partition coefficient: n-octanol/water : Not applicable.

- Vapor pressure** : $<0.67\text{ kPa}$ ($<5\text{ mm Hg}$)
- Relative density** : Not available.
- Density** : 1.4 g/cm^3
- Vapor density** : ≥ 1 [Air = 1]
- Explosive properties** : Not available.
- Oxidizing properties** : Not available.

Particle characteristics

- Median particle size** : Not applicable.
- Additional information** : Refer to section 3 for further detail on nanoform particle characterization. Particle characteristics: Not applicable - Liquid.

9.2.1 Information with regard to physical hazard classes

SECTION 9: Physical and chemical properties

9.2.2 Other safety characteristics

Miscible with water : No.
Evaporation rate : Not available.

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : Stable under recommended storage and handling conditions (see Section 7).

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : No specific data. Moisture-sensitive material. Polymerization.

10.5 Incompatible materials : Reactive or incompatible with the following materials:
acids
alkalis
oxidizing materials

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced. Methanol is slowly released from the product when exposed to air.

SECTION 11: Toxicological information

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

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Hexamethyldisilazane	LD50 Dermal	Rat	547 mg/kg	-
	LD50 Oral	Rat	850 mg/kg	-
3-Aminopropyltriethoxysilane	LD50 Oral	Rat	1457 mg/kg	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Hexamethyldisilazane	850	547	N/A	10.1	N/A
3-Aminopropyltriethoxysilane	1457	N/A	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
3-Aminopropyltriethoxysilane	Eyes - Severe irritant Skin - Erythema/Eschar	Rabbit Rabbit	- >2	- 1 hours	1 hours -

Conclusion/Summary

Skin : Based on available data, the classification criteria are not met.
Eyes : Based on available data, the classification criteria are not met.
Respiratory : Based on available data, the classification criteria are not met.

Sensitization

Product/ingredient name	Route of exposure	Species	Result
3-Aminopropyltriethoxysilane	skin	Guinea pig	Sensitizing
Trimethoxy(vinyl)silane	skin	Guinea pig	Sensitizing

Conclusion/Summary

SECTION 11: Toxicological information

Skin : Based on available data, the classification criteria are not met.
Contains small percentage of substances which can cause allergic reactions.

Respiratory : Based on available data, the classification criteria are not met.

Mutagenicity

Conclusion/Summary : Based on available data, the classification criteria are not met.

Carcinogenicity

Conclusion/Summary : Based on available data, the classification criteria are not met.

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
Cyclotetrasiloxane, octamethyl	-	Positive	-	Rat	Inhalation: 300 ppm	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Product: Based on available data, the classification criteria are not met.			

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Product: Based on available data, the classification criteria are not met.			

Aspiration hazard

Product/ingredient name	Result
Product: Based on available data, the classification criteria are not met.	

Information on the likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Eye contact : May cause slight transient irritation.

Inhalation : Exposure to decomposition products may cause a health hazard. Cures in the presence of water or air moisture, releasing small amounts of methanol. Methanol ; Toxic by inhalation.

Skin contact : Defatting to the skin.

Ingestion : Ingestion may cause gastrointestinal irritation and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : May cause slight transient irritation. (redness)

Inhalation : May cause slight transient irritation.

Skin contact : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
Contains small percentage of substances which can cause allergic reactions.

Ingestion : Ingestion may cause gastrointestinal irritation and diarrhea.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

SECTION 11: Toxicological information

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary : Based on available data, the classification criteria are not met.

General : Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

Carcinogenicity : Not applicable.

Mutagenicity : Not applicable

Reproductive toxicity : No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not applicable.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

Not readily biodegradable.

This material is harmful to aquatic life with long lasting effects.

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Hexamethyldisiloxane	Acute EC10 0.09 mg/l Fresh water	Algae - <i>Pseudokirchneriella subcapitata</i>	70 hours
Hexamethyldisilazane	Acute LC50 0.46 mg/l	Fish - <i>Oncorhynchus mykiss</i>	96 hours
	Chronic NOEC 0.08 mg/l	Crustaceans - <i>Daphnia magna</i>	21 days
Cyclotetrasiloxane, octamethyl	Acute EC50 80 mg/l	Daphnia	48 hours
	Acute LC50 88 mg/l	Fish - <i>Danio rerio</i>	96 hours
	Chronic EC10 0.022 mg/l	Algae - <i>Pseudokirchneriella subcapitata</i>	-
	Chronic NOEC ≥0.015 mg/l	Daphnia - <i>Daphnia magna</i>	21 days
	Chronic NOEC 4.4 µg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i> - Egg	93 days
	Chronic NOEC 4.4 µg/l	Fish - <i>Oncorhynchus mykiss</i>	93 days

Conclusion/Summary : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Calculation method

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Hexamethyldisiloxane	OECD 301C Ready Biodegradability - Modified MITI Test (I)	2 % - Not readily - 28 days	-	-
Hexamethyldisilazane	OECD 301D Ready Biodegradability - Closed Bottle Test	15.3 % - Not readily - 28 days	-	-
3-Aminopropyltriethoxysilane	EU	67 % - Not readily - 28 days	-	-
Cyclotetrasiloxane, octamethyl	OECD 310 Ready	3.7 % - Not readily - 29 days	-	-

SECTION 12: Ecological information

	Biodegradability - CO ₂ in Sealed Vessels (Headspace Test)			
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Conclusion/Summary : Not readily biodegradable.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
✓ Liquid gasket	-	-	Not readily
hexamethyldisiloxane	-	-	Not readily
Hexamethyldisilazane	-	-	Not readily
3-Aminopropyltriethoxysilane	-	-	Not readily
Cyclotetrasiloxane, octamethyl	-	-	Not readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
✓ hexamethyldisiloxane	5.3	1290 to 2410	High
Hexamethyldisilazane	1.19	20.89	Low
Cyclotetrasiloxane, octamethyl	6.488	12400	High

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Non water-soluble liquid

12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
✓ hexamethyldisiloxane	No	No	No	No	No	No	No
Hexamethyldisilazane	No	N/A	No	No	No	N/A	No
3-Aminopropyltriethoxysilane	No	N/A	No	No	No	N/A	No
Trimethoxy(vinyl)silane	No	N/A	N/A	No	N/A	N/A	N/A
Cyclotetrasiloxane, octamethyl	SVHC (Recommended)	Specified	Specified	Specified	SVHC (Recommended)	Specified	Specified

12.6 Endocrine disrupting properties

Not applicable.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Hazardous waste : Yes.

European waste catalogue (EWC)

Waste code	Waste designation
08 04 09*	waste adhesives and sealants containing organic solvents or other hazardous substances

SECTION 13: Disposal considerations

Packaging

- Methods of disposal** : Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.

- 14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

- 14.7 Maritime transport in bulk according to IMO instruments** : Not available.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

Intrinsic property	Ingredient name	Status	Reference number	Date of revision
PBT	octamethylcyclotetrasiloxane	Recommended	ED/71/2019	4/14/2021
vPvB	octamethylcyclotetrasiloxane	Recommended	ED/71/2019	4/14/2021

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
Cyclotetrasiloxane, octamethyl	<0.1	70

- Labeling** : Not applicable.

Other EU regulations

SECTION 15: Regulatory information

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Explosive precursors :  Not applicable.

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

15.2 Chemical Safety Assessment : No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

 Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 DMEL = Derived Minimal Effect Level
 DNEL = Derived No Effect Level
 EUH statement = CLP-specific Hazard statement
 N/A = Not available
 PBT = Persistent, Bioaccumulative and Toxic
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number
 SGG = Segregation Group
 vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Aquatic Chronic 3, H412	Calculation method

Full text of abbreviated H statements

SECTION 16: Other information

H225	Highly flammable liquid and vapor.
H226	Flammable liquid and vapor.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 3	ACUTE TOXICITY - Category 3
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Aquatic Chronic 2	AQUATIC HAZARD (LONG-TERM) - Category 2
Aquatic Chronic 3	AQUATIC HAZARD (LONG-TERM) - Category 3
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Repr. 2	TOXIC TO REPRODUCTION - Category 2
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Sens. 1	SKIN SENSITIZATION - Category 1
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

Date of issue/ Date of revision : 11/21/2025

Version : 2

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