

Safety Data Sheet

according to Regulation (EC) No 1907/2006

KRYTOX™ GPL 200 - 207, 207-500

Print date: 30.08.2016

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

1.1. Product identifier

KRYTOX™ GPL 200 - 207, 207-500

Further trade names

KRYTOX™ XHT-S, -SX, -SZ; FG 20, 22, 24, 26; NRT 8900, 8904, 8906;
EG-2000, EG-3000; KRYTOX™ PLSS; LVP; LS-23; AUT 2045;
UM 04 PGL; TLC Grease; KDP 4953
Sealant ST-45, ST-63

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

Use of the substance/mixture

Lubricating agent

Uses advised against

none

1.3. Details of the supplier of the safety data sheet

Company name:	H. Costenoble GmbH & Co. KG	
Street:	Rudolf-Diesel-Str. 18	
Place:	D-65760 Eschborn / Taunus	
Post-office box:	5205	
	D-65727 Eschborn / Taunus	
Telephone:	(+49) (0)6173 / 9373 - 0	
e-mail:	service@costenoble.de	
Contact person:	Reinhold Luetke Huendfeld	Telephone: (+49)(0)6173 / 9373 - 27
e-mail:	R.Luetke-Huendfeld@costenoble.de	
Internet:	www.costenoble.de	

1.4. Emergency telephone number: (+49)(0)6131 / 19240 (Medical Emergency Information in case of Intoxication: Poison Control Center)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC

This mixture is not classified as hazardous according to Directive 1999/45/EC.

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

This mixture is not classified as hazardous according to Regulation (EC) No. 1272/2008.

2.2. Label elements

2.3. Other hazards

The thermal decomposition vapors of fluorinated polymers may cause polymer fume fever with flu-like symptoms in humans, especially when smoking contaminated tobacco. The inhalation of large quantities may lead to a lung oedema. Repeated occurrence of polymer fume fever may lead to permanent lung damage.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
	Perfluoro alkylether	55-85 %
60164-51-4		
	Polytetrafluoroethylene	15-45 %
9002-84-0		

Full text of R, H and EUH phrases: see section 16.

SECTION 4: First aid measures
4.1. Description of first aid measures
General information

Never give anything by mouth to an unconscious person or a person with cramps. In all cases of doubt, or when symptoms persist, seek medical advice.

After inhalation

In case of inhalation of decomposition products, affected person should be moved into fresh air and kept still. Where appropriate artificial ventilation. Get medical advice/attention.

After contact with skin

Gently wash with plenty of soap and water.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. Remove contact lenses. If eye irritation persists: Consult an ophthalmologist.

After ingestion

Do NOT induce vomiting. Seek medical advice immediately.

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

Following inhalation: fever.

After skin contact: Irritant and corrosive effects

Following eye contact: eye defects. Lachrimation

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

none

SECTION 5: Firefighting measures
5.1. Extinguishing media
Suitable extinguishing media

The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

none

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to the escape of irritating gases and vapours. Hazardous decomposition products: Fluorhydric acid.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

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Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No special precautionary measures are necessary.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal. Clear contaminated areas thoroughly.

6.4. Reference to other sections

See protective measures under point 7 and 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Do not use above following temperatures: 290 °C. Do not breathe vapour. When using do not eat, drink or smoke.

Advice on protection against fire and explosion

Usual measures for fire prevention.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Store in a dry place.

Advice on storage compatibility

none

7.3. Specific end use(s)

none

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

Protective and hygiene measures

Protect skin by using skin protective cream. When using do not eat, drink or smoke. Wash hands before breaks and after work.

Eye/face protection

Tightly sealed safety glasses.

Hand protection

Wear protective gloves. Suitable gloves type: NBR (Nitrile rubber).

Skin protection

No special measures are necessary. Avoid contact with skin, eyes and clothes.

Respiratory protection

Thermal decomposition can lead to the escape of irritating gases and vapours. Respiratory protection necessary at: Thermal decomposition. Filtering device (full mask or mouthpiece) with filter: ABE1

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Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: solid
Colour: white
Odour: odourless

Test method

pH-Value: neutral

Changes in the physical state

Flash point: Non-flammable.

Explosive properties

not explosive.

Oxidizing properties

none

Density (at 24 °C): 1,89-1,93 g/cm³

Water solubility: insoluble

9.2. Other information

Temperature of decomposition (°C): ≥ 300 °C

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under standard conditions.

10.2. Chemical stability

Stable under standard conditions.

10.3. Possibility of hazardous reactions

Stable under standard conditions.

10.4. Conditions to avoid

heat. Decomposition takes place from temperatures above: 300 °C

10.5. Incompatible materials

No data available

10.6. Hazardous decomposition products

Fluorhydric acid. Pyrolysis products, contains fluorine.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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Acute toxicity

 Acute toxicity (oral):
 ALD > 11000 mg/kg (Rat)

Acute toxicity (inhalant): No data available.

The thermal decomposition vapors of fluorinated polymers may cause polymer fume fever with flu-like symptoms in humans, especially when smoking contaminated tobacco. The inhalation of large quantities may lead to a lung oedema. Repeated occurrence of polymer fume fever may lead to permanent lung damage.

- Perfluoroalkylether: ALC: = ca. 19.54 mg/l (4h, Rat)

Acute toxicity (dermal): No data available

- Perfluoroalkylether: ALD = ca. 17000 mg/l (Rabbit)

CAS No	Chemical name				
	Exposure route	Method	Dose	Species	Source
60164-51-4	Perfluoro alkylether				
	oral	LD50 mg/kg	> 11000	Rat	
	dermal	LD50 mg/kg	>17000	Rabbit	
9002-84-0	Polytetrafluoroethylene				
	oral	LD50	>11280 mg/kg	Rat	

Irritation and corrosivity

Irritant effect on the skin: Rabbit: Slight irritation. Not classified as irritant.

Serious eye damage/eye irritation: Rabbit: Slight irritation. Not classified as irritant.

Sensitising effects

Guinea-pig. Animal tests did not cause sensitisation by skin contact (method: Buehler Test).

- Perfluoroalkylether: No sensitisation in patch test on human volunteers (Modified Draize Test).

Severe effects after repeated or prolonged exposure

No data available.

Carcinogenic/mutagenic/toxic effects for reproduction

In-vitro mutagenicity: No data available.

- Perfluoroalkylether: No evidence for mutagenic effects in tests on cultured bacteria or mammal cells.

Carcinogenicity: No data available.

Reproductive toxicity: No data available.

- Perfluoroalkylether: No indications of human reproductive toxicity exist.

Additional information on tests

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

SECTION 12: Ecological information
12.1. Toxicity

No data available

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- Perfluoroalkylether
 LC50/96h/Oncorhynchus mykiss (rainbow trout): > 1000 mg/l
 EC50/48h/Daphnia magna (water flea): > 1000 mg/l

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h] [d]	Species	Source
60164-51-4	Perfluoro alkylether					
	Acute fish toxicity	LC50	>1000 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	
	Acute algae toxicity	ErC50	>1000 mg/l		Pseudokirchneriella subcapitata	
	Acute crustacea toxicity	EC50	>100 mg/l	48 h	Daphnia magna (Big water flea)	
	Algae toxicity	NOEC	>1000 mg/l	3 d	Pseudokirchneriella subcapitata	

12.2. Persistence and degradability

Product is biodegradable with difficulty.

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Other adverse effects

No data available

Further information

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

SECTION 13: Disposal considerations
13.1. Waste treatment methods
Advice on disposal

Dispose of waste according to applicable legislation.

Waste disposal number of waste from residues/unused products

 070607 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics; halogenated still bottoms and reaction residues
 Classified as hazardous waste.

Waste disposal number of used product

 070607 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics; halogenated still bottoms and reaction residues
 Classified as hazardous waste.

Waste disposal number of contaminated packaging

150102 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); plastic packaging

Contaminated packaging

Completely emptied packages can be recycled.

SECTION 14: Transport information

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Land transport (ADR/RID)

Other applicable information (land transport)

No dangerous good in sense of these transport regulations.

Inland waterways transport (ADN)

Other applicable information (inland waterways transport)

No dangerous good in sense of these transport regulations.

Marine transport (IMDG)

Other applicable information (marine transport)

No dangerous good in sense of these transport regulations.

Air transport (ICAO)

Other applicable information (air transport)

No dangerous good in sense of these transport regulations.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information

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

National regulatory information

Water contaminating class (D): 1 - slightly water contaminating

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

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(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)