Safety Data Sheet

According to Annex II to REACH - Regulation (EU) 2020/878 and to Annex II to UK REACH

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

1.1. Product identifier

Code:	**4110021190**
Product name	**ELASTIC FOAM FOR FRAMES**
UFI :	**5AEY-9V2K-FQ8E-TG00**

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

Intended use **Polyurethane sealant and insulating foam for building**

1.3. Details of the supplier of the safety data sheet

Name	**Meccanocar Italia S.r.l.**
Full address	**Via San Francesco, 22**
District and Country	**56033 Capannoli (PI)** **Italy**
	Tel. +39 0587 609433
	Fax +39 0587 607145
e-mail address of the competent person	
responsible for the Safety Data Sheet	**moreno.meini@meccanocar.it**
Supplier:	

1.4. Emergency telephone number

For urgent inquiries refer to **National Poisons Information Service: +44 121 507 4123**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Aerosol, category 1	H222	Extremely flammable aerosol.
	H229	Pressurised container: may burst if heated.
Carcinogenicity, category 2	H351	Suspected of causing cancer.
Acute toxicity, category 4	H302	Harmful if swallowed.
Specific target organ toxicity - repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.
Eye irritation, category 2	H319	Causes serious eye irritation.
Skin irritation, category 2	H315	Causes skin irritation.
Specific target organ toxicity - single exposure, category 3	H335	May cause respiratory irritation.
Respiratory sensitization, category 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H222	Extremely flammable aerosol.
H229	Pressurised container: may burst if heated.
H351	Suspected of causing cancer.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
EUH204	Contains isocyanates. May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251	Do not pierce or burn, even after use.
P410+P412	Protect from sunlight. Do no expose to temperatures exceeding 50°C / 122°F.
P211	Do not spray on an open flame or other ignition source.
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.

P271	Use only outdoors or in a well-ventilated area.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501	Dispose of contents / container in accordance with local regulations.
Contains:	POLYMETHYLENE POLYPHENYL POLYISOCYANATE MULTI-COMPONENT SUBSTANCE TRI (1-CHLORINE-2-PROPIL) PHOSPHATE PROPOSSILATED GLYCEROL

As from 24 August 2023 adequate training is required before industrial or professional use.

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration ≥ 0.1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
POLYMETHYLENE POLYPHENYL POLYISOCYANATE INDEX 615-005-00-9 EC - CAS 9016-87-9	35 ≤ x < 37,5	Carc. 2 H351, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Resp. Sens. 1 H334, Skin Sens. 1 H317 STA Inhalation mists/powders: 1,5 mg/l
MULTI-COMPONENT SUBSTANCE TRI (1-CHLORINE-2-PROPIL) PHOSPHATE INDEX - EC 911-815-4 CAS -	19,5 ≤ x < 21	Acute Tox. 4 H302 STA Oral: 500 mg/kg
PROPANE INDEX 601-003-00-5 EC 200-827-9 CAS 74-98-6 REACH Reg. 01-2119486944-21-XXXX	9 ≤ x < 10,5	Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: U
ISOBUTANE INDEX 601-004-00-0	9 ≤ x < 10,5	Flam. Gas 1A H220, Press. Gas H280

EC 200-857-2		
CAS 75-28-5		
REACH Reg. 01-2119485395-27-XXXX		
METHYL OXIDE DIMETHYLETER		
INDEX -	9 ≤ x < 10,5	Flam. Gas 1A H220, Press. Gas H280
EC 204-065-8		
CAS 115-10-6		
REACH Reg. 01-2119472128-37-XXXX		
ETHYLENE GLYCOL		
INDEX 603-027-00-1	0,9 ≤ x < 1	Acute Tox. 4 H302, STOT RE 2 H373
EC 203-473-3		STA Oral: 500 mg/kg
CAS 107-21-1		
REACH Reg. 01-2119456816-28-XXXX		

The full wording of hazard (H) phrases is given in section 16 of the sheet.

The product is an aerosol containing propellants. For the purposes of calculation of the health hazards, propellants are not considered (unless they have health hazards). The percentages indicated are inclusive of the propellants.

Percentage of propellants: 27,00 %

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.
INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

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

Specific information on symptoms and effects caused by the product are unknown.

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

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If overheated, aerosol cans can deform, explode and be propelled considerable distances. Put a protective helmet on before approaching the fire. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site. Send away individuals who are not suitably equipped. Wear protective gloves / protective clothing / eye protection / face protection.

6.2. Environmental precautions

Do not disperse in the environment.

6.3. Methods and material for containment and cleaning up

Use inert absorbent material to soak up leaked product. Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Avoid bunching of electrostatic charges. Do not spray on flames or incandescent bodies. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Do not eat, drink or smoke during use. Do not breathe spray.

7.2. Conditions for safe storage, including any incompatibilities

Store in a place where adequate ventilation is ensured, away from direct sunlight at a temperature below 50°C / 122°F, away from any combustion sources.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory references:

ESP	España	Límites de exposición profesional para agentes químicos en España 2021
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
LTU	Lietuva	Jsakymas dėl lietuvos higienos normos hn 23:2011 „cheminių medžiagų profesinio poveikio ribiniai dydžiai. Matavimo ir poveikio vertinimo bendrieji reikalavimai“ patvirtinimo
NOR	Norge	Forskrift om endring i forskrift om tiltaksverdier og grenseverdier for fysiske og kjemiske faktorer i arbeidsmiljøet samt smitterisikogrupper for biologiske faktorer (forskrift om tiltaks- og grenseverdier), 21. august 2018 nr. 1255
PRT	Portugal	Decreto-Lei n.º 1/2021 de 6 de janeiro, valores-limite de exposição profissional indicativos para os agentes químicos. Decreto-Lei n.º 35/2020 de 13 de julho, proteção dos trabalhadores contra os riscos ligados à exposição durante o trabalho a agentes cancerígenos ou mutagénicos
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	TLV-ACGIH	ACGIH 2022
	RCP TLV	ACGIH TLVs and BEIs – Appendix H

METHYL OXIDE DIMETHYLETER

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLEP	ITA	983	400			INHAL

Predicted no-effect concentration - PNEC		
Normal value in fresh water	1,55	mg/l
Normal value in marine water	0,16	mg/l
Normal value for fresh water sediment	6,581	mg/kg
Normal value for marine water sediment	0,69	mg/kg
Normal value for water, intermittent release	1,549	mg/l
Normal value for the terrestrial compartment	0,45	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation				471 mg/m3		NPI		1894 mg/m3

ISOBUTANE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
RCP TLV			1000			RESP

PROPANE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP		1000			
TLV	NOR	900	500			
NDS/NDSCh	POL	1800				

TLV-ACGIH	1000

ETHYLENE GLYCOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	52	20	104	40	SKIN
VLEP	FRA	52	20	104	40	SKIN
VLEP	ITA	52	20	104	40	SKIN
RD	LTU	25	10	50	20	SKIN
TLV	NOR	52	20			SKIN
VLE	PRT	52	20	104	40	SKIN
NDS/NDSCh	POL	15		50		SKIN
WEL	GBR	52	20	104	40	SKIN
OEL	EU	52	20	104	40	SKIN
TLV-ACGIH			25		50	
TLV-ACGIH				10		INHAL

Predicted no-effect concentration - PNEC		
Normal value in fresh water	10	mg/l
Normal value in marine water	1	mg/l
Normal value for fresh water sediment	37	mg/kg
Normal value for marine water sediment	3,7	mg/kg
Normal value of STP microorganisms	199,5	mg/l
Normal value for the terrestrial compartment	1,53	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation			7 mg/m3				35 mg/m3	
Skin				53 mg/kg bw/d				106 mg/kg bw/d

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).

HAND PROTECTION
None required.

SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, a mask with a type AX filter combined with a type P filter should be worn (see standard EN 14387).
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

MULTI-COMPONENT SUBSTANCE TRI (1-CHLORINE-2-PROPIL) PHOSPHATE

Waterproof chemical resistant gloves that conform to an approved standard must always be worn when handling chemicals
products if a risk assessment indicates that this is necessary. After contamination with the product, immediately replace the gloves and dispose of them according to the relevant national and local regulations.

ISOBUTANE

Suitable glove material Protective gloves, eg. nitrile butadiene rubber gloves (NBR), leather gloves, heat insulating
Selection of protective gloves to meet specific workplace requirements.
Suitability for specific workplaces should be clarified with the manufacturers of protective gloves.
The information is based on our tests, references from literature and information from glove manufacturers or derived by analogy with similar materials.
Remember that the useful time per day of a chemical protective glove can be much shorter than the breakthrough time determined according to EN 374 due to the many influencing factors involved.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	aerosol	
Colour	light yellow	
Odour	characteristic	
Melting point / freezing point	not available	
Initial boiling point	-12 °C	
Flammability	not available	
Lower explosive limit	not available	

Upper explosive limit	not available	
Flash point	< -83 °C	
Auto-ignition temperature	> 460 °C	
Decomposition temperature	not available	
pH	not available	
Kinematic viscosity	not available	
Solubility	insoluble in water	
Partition coefficient: n-octanol/water	not available	
Vapour pressure	<300000 Pa	Temperature: 50 °C
Density and/or relative density	1012 g/dm3	
Relative vapour density	not available	
Particle characteristics	not applicable	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

Information not available

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

ETHYLENE GLYCOL

In the air absorbs moisture.Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

MULTI-COMPONENT SUBSTANCE TRI (1-CHLORINE-2-PROPIL) PHOSPHATE

Decomposition temperature:> 200 ° C

METHYL OXIDE DIMETHYLETER

Vapors can form an explosive mixture with air.

ISOBUTANE

Vapors can form an explosive mixture with air.

ETHYLENE GLYCOL

Risk of explosion on contact with: perchloric acid.May react dangerously with: chlorosulphuric acid,sodium hydroxide,sulphuric acid,phosphorus pentasulphide,chromium (III) oxide,chromyl chloride,potassium perchlorate,potassium dichromate,sodium peroxide,aluminium.Forms explosive mixtures with: air.

10.4. Conditions to avoid

Avoid overheating.

METHYL OXIDE DIMETHYLETER

Temperature:> 52 ° C

ISOBUTANE

Keep away from heat and other causes of fire.

ETHYLENE GLYCOL

Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

Strong reducing or oxidising agents, strong acids or alkalis, hot material.

METHYL OXIDE DIMETHYLETER

Oxygen, oxidizing agents, acid anhydrides, strong acids, carbon monoxide, acetic anhydride, powdered metals.

ISOBUTANE

Strong oxidizing agents, chlorine, oxygen.

10.6. Hazardous decomposition products

METHYL OXIDE DIMETHYLETER

Formaldehyde, carbon dioxide (CO2), carbon monoxide, methanol.

ISOBUTANE

In case of fire or production of thermal decomposition, for example, carbon monoxide, carbon dioxide (CO2).

ETHYLENE GLYCOL

May develop: hydroxyacetaldehyde,glyoxal,acetaldehyde,methane,carbon monoxide,hydrogen.

SECTION 11. Toxicological information

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

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

ETHYLENE GLYCOL
WORKERS: inhalation; contact with the skin.
POPULATION: room air inhalation; skin contact with products containing the substance.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

ETHYLENE GLYCOL
By ingestion it initially stimulates the central nervous system; subsequently a phase of depression takes over. Kidney damage can occur, with anuria and uremia. The symptoms of overexposure are: vomiting, drowsiness, difficult breathing, convulsions. The lethal dose for humans is approximately 1.4 ml / kg.

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation - mists / powders) of the mixture:	3,0 mg/l
ATE (Oral) of the mixture:	1825,00 mg/kg
ATE (Dermal) of the mixture:	Not classified (no significant component)

POLYMETHYLENE POLYPHENYL POLYISOCYANATE

STA (Inhalation mists/powders):	1,5 mg/l estimate from table 3.1.2 of Annex I of the CLP

(figure used for calculation of the acute toxicity estimate of the mixture)

MULTI-COMPONENT SUBSTANCE TRI (1-CHLORINE-2-PROPIL) PHOSPHATE

STA (Oral):	500 mg/kg estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)

METHYL OXIDE DIMETHYLETER

LC50 (Inhalation vapours):	164000 ppm/4h rat

PROPOSSILATED GLYCEROL
Method: OECD 401
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Oral
Results: LD50> 2000 mg / kg bw
Method: OECD 402
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Dermal
Results: LD50> 2000 mg / kg bw

METHYL OXIDE DIMETHYLETER
Method: Not indicated
Reliability: 2
Species: Rat (albino ChR-CD; male)
Route of exposure: Inhalation (gas)
Results: LC50: 164 000 ppm

PROPANE
Method: To study the concentrations at which the effects of the CNS occur following exposure by inhalation to propane by measuring LC50 (15 min) and EC50 (CNS) (10 min) in rats.
Reliability: 2
Species: Rat (Alderley Park (SPF); male / female)
Route of exposure: Inhalation
Results: LC50> 800 000 ppm

ETHYLENE GLYCOL
Method: Not indicated
Reliability: 2
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Oral
Results: LD50 = 7712 mg / kg bw
Method: Not indicated
Reliability: 2
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Inhalation (aerosol)
Results: LC50> 2.5 mg / L air
Bibliographic reference: Evaluation of the Developmental Toxicity of Ethylene Glycol Aerosol in the CD Rat and CD-1 Mouse by Whole-Body Exposure, Tyl RW, Ballantyne B, Fisher LC, Fait DL, Savine TA, Dodd DE, Klonne DR, Pritts IM (1995)
Method: Not indicated
Reliability: 2
Species: Mouse (CD-1; male / female)
Route of exposure: Dermal
Results: LD50> 3500 mg / kg bw
Bibliographic reference: Assessment of the Developmental Toxicity of Ethylene Glycol Applied Cutaneously to CD-1 Mice, Tyl RW, Fisher LC, Kubena MF, Vrbanic MA, Losco PE (1995)

SKIN CORROSION / IRRITATION

Causes skin irritation

PROPOSSILATED GLYCEROL
Method: OECD 404
Reliability: 1
Species: Rabbit (New Zealand White)
Route of exposure: Dermal
Results: Not irritating

ETHYLENE GLYCOL
Method: Not indicated
Reliability: 2
Species: Rabbit (Vienna White)
Route of exposure: Dermal
Results: Not classified

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

PROPOSSILATED GLYCEROL
Method: OECD 405
Reliability: 1
Species: Rabbit (New Zealand White)
Route of exposure: Ocular
Results: Not irritating

ETHYLENE GLYCOL
Method: Not indicated
Reliability: 2
Species: Rabbit (Vienna White)
Route of exposure: Ocular
Results: Not classified

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

Sensitising for the respiratory system

PROPOSSILATED GLYCEROL
Method: OECD 406

Reliability: 1
Species: guinea pig (Dunkin-Hartley; male / female)
Route of exposure: Dermal
Results: Not sensitizing

Skin sensitization

ETHYLENE GLYCOL
Method: Not indicated
Reliability: 2
Species: guinea pig (Dunkin-Hartley; male / female)
Route of exposure: Dermal
Results: Not classified
Bibliographic reference: Evaluation of Skin Irritation and Sensitization of Two Diol Solutions used as Experimental Dentin Primers in Humans and Guinea Pigs, Kurihara A, Manabe A, Katsuno K, Itoh K, Hismitsu H, Wakumoto S, Yoshida T (1996)

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

PROPOSSILATED GLYCEROL
Method: OECD 471 in vitro test
Reliability: 1
Species: S. typhimurium
Results: Negative with and without metabolic activation

METHYL OXIDE DIMETHYLETER
Method: OECD 471 in vitro test
Reliability: 1
Species: S. typhimurium
Results: Negative
Method: Equivalent or similar to OECD 477 in vivo test
Reliability: 2
Species: Drosophila melanogaster (male)
Route of exposure: Inhalation (gas)
Results: Negative

PROPANE
Method: OECD 471 in vitro test
Reliability: 1
Species: Histidine Salmonella
Results: Negative with or without metabolic activation
Method: OECD 474-test in vivo
Reliability: 1
Species: Rat (Sprague-Dawley CD; male / female)
Route of exposure: Inhalation (gas)
Results: Negative

ETHYLENE GLYCOL
Method: OECD 471 in vitro test
Reliability: 1

Species: S. typhimurium
Results: Negative with and without metabolic activation
Method: Not indicated - in vivo test
Reliability: 2
Species: Rat (Fischer 344; male / female)
Route of exposure: Oral
Results: Negative

CARCINOGENICITY

Suspected of causing cancer

METHYL OXIDE DIMETHYLETER
Method: Equivalent or similar to OECD 453
Reliability: 1
Species: Rat (CD (R) (SD) BR; male / female)
Route of exposure: Inhalation (vapors)
Results: Negative

ETHYLENE GLYCOL
The available studies have not shown carcinogenic power. In a 2-year carcinogenicity study, conducted by the US National Toxicology Program (NTP), in which ethylene glycol was administered in feeding, "no evidence of carcinogenic activity" was observed in male and female B6C3F1 mice (NTP, 1993).

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

METHYL OXIDE DIMETHYLETER
Method: Equivalent or similar to OECD 452
Reliability: 1
Species: Rat (CD (SD) BR; male / female)
Route of exposure: Inhalation (vapors)
Results: Negative

Adverse effects on sexual function and fertility

PROPOSSILATED GLYCEROL
Method: OECD 421-Read across
Reliability: 1
Species: Rat (Wistar; male / female)
Route of exposure: Oral
Results: Negative, NOAEL (fertility)> = 1000 mg / kg bw / day

PROPANE
Method: OECD 413
Reliability: 1
Species: Rat (Sprague-Dawley CD; male / female)

Route of exposure: Inhalation
Results: NOAEC (fertility) 10 000 ppm

Adverse effects on development of the offspring

PROPANE
Method: EPA OPPTS 870.3700
Reliability: 1
Species: Rat (VAF / Plus®, Sprague-Dawley Derived (CD®) Crl: CD® IGS BR)
Route of exposure: Inhalation (gas)
Results: NOAEC (development) 10 426 ppm

STOT - SINGLE EXPOSURE

May cause respiratory irritation

POLYMETHYLENE POLYPHENYL POLYISOCYANATE
Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for single exposure.

MULTI-COMPONENT SUBSTANCE TRI (1-CHLORINE-2-PROPIL) PHOSPHATE
Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for single exposure.

PROPOSSILATED GLYCEROL
Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for single exposure.

METHYL OXIDE DIMETHYLETER
Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for single exposure.

ISOBUTANE
Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for single exposure.

PROPANE
Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for single exposure.

ETHYLENE GLYCOL
Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for single exposure.

STOT - REPEATED EXPOSURE

May cause damage to organs

POLYMETHYLENE POLYPHENYL POLYISOCYANATE
Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for prolonged or repeated exposure.

MULTI-COMPONENT SUBSTANCE TRI (1-CHLORINE-2-PROPIL) PHOSPHATE
Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for prolonged or repeated exposure.

PROPOSSILATED GLYCEROL
Method: OECD 407-Read across
Reliability: 1
Species: Rat (Wistar; male / female)
Route of exposure: Oral
Results: Negative, NOAEL> = 1000 mg / kg bw / day

METHYL OXIDE DIMETHYLETER
Method: Equivalent or similar to OECD 452
Reliability: 1
Species: Rat (Crl: CD (R) (SD) BR; male / female)
Route of exposure: Inhalation (vapors)
Results: Positive, NOAEL = 2.5%

ISOBUTANE
Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for prolonged or repeated exposure.

PROPANE
Method: OECD 422
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Inhalation (gas)
Results: NOAEC 16 000 ppm

ETHYLENE GLYCOL
Method: OECD 410
Reliability: 1
Species: Dog (Beagle; male / female)
Route of exposure: Dermal
Results: NOAEL> 2 200 - <4 400 mg / kg bw / day

Target organs

ETHYLENE GLYCOL
Kidney

Route of exposure

ETHYLENE GLYCOL
Oral

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12. Ecological information

12.1. Toxicity

ETHYLENE GLYCOL	
LC50 - for Fish	72860 mg/l/96h
EC10 for Algae / Aquatic Plants	100 mg/l/72h
Chronic NOEC for Algae / Aquatic Plants	100 mg/l
METHYL OXIDE DIMETHYLETER	
LC50 - for Fish	4100 mg/l/96h
EC50 - for Crustacea	4400 mg/l/48h
EC50 - for Algae / Aquatic Plants	154,917 mg/l/72h
Chronic NOEC for Fish	4100 mg/l
Chronic NOEC for Crustacea	4400 mg/l
PROPOSSILATED GLYCEROL	
LC50 - for Fish	> 1000 mg/l/96h
EC50 - for Crustacea	> 100 mg/l/48h
EC50 - for Algae / Aquatic Plants	> 100 mg/l/72h
Chronic NOEC for Algae / Aquatic Plants	> 100 mg/l

12.2. Persistence and degradability

PROPOSSILATED GLYCEROL
Intrinsically degradable in water, 99% in 28 days.
ETHYLENE GLYCOL
Quickly degradable in water, 90% in 10 days.

PROPANE	
Solubility in water	0,1 - 100 mg/l
Rapidly degradable	
ETHYLENE GLYCOL	
Solubility in water	1000 - 10000 mg/l
Rapidly degradable	
METHYL OXIDE DIMETHYLETER	

Solubility in water	45600 mg/l

12.3. Bioaccumulative potential

PROPANE	
Partition coefficient: n-octanol/water	1,09
ETHYLENE GLYCOL	
Partition coefficient: n-octanol/water	-1,36
METHYL OXIDE DIMETHYLETER	
Partition coefficient: n-octanol/water	0,07 Log Kow

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

MULTI-COMPONENT SUBSTANCE TRI (1-CHLORINE-2-PROPIL) PHOSPHATE
Product residues and empty uncleaned containers must be packed, sealed, labeled and disposed of or recycled in accordance with relevant national and local regulations. In case of large quantities, consult the supplier.
For disposal within the EC, use the appropriate code according to the European waste list (EWL). It is the responsibility of the polluter to assign waste to specific waste codes for sectors and industrial processes according to the European Waste List (EWL).

METHYL OXIDE DIMETHYLETER
It can be used after reconditioning. In accordance with local and national regulations. It must be incinerated in a suitable incineration plant in possession of an authorization issued by the competent authorities.

ISOBUTANE
Compliance with local regulations, e.g. incineration through flaring system.

No waste key number according to the European list of waste types can be assigned to this product, since this classification is based on the use (not yet determined) for which the product is intended for the consumer.
The key number for the waste must be determined according to the European waste type list (decision on the EU waste type list 2000/532 / EC) in collaboration with the disposal company / producer / authority Official.

SECTION 14. Transport information

14.1. UN number or ID number

ADR / RID, IMDG, IATA: 1950

14.2. UN proper shipping name

ADR / RID: AEROSOLS
IMDG: AEROSOLS
IATA: AEROSOLS, FLAMMABLE

14.3. Transport hazard class(es)

ADR / RID:	Class: 2	Label: 2.1
IMDG:	Class: 2	Label: 2.1
IATA:	Class: 2	Label: 2.1

14.4. Packing group

ADR / RID, IMDG, IATA: -

14.5. Environmental hazards

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: -- Special provision: 190, 327, 344, 625	Limited Quantities: 1 L	Tunnel restriction code: (D)
IMDG:	EMS: F-D, S-U	Limited Quantities: 1 L	
IATA:	Cargo:	Maximum quantity: 150 Kg	Packaging instructions: 203
	Passengers:	Maximum quantity: 75 Kg	Packaging instructions: 203

Special provision: A145, A167, A802

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU: P3a

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product

Point	40	

Contained substance

Point	56-75	POLYMETHYLENE POLYPHENYL POLYISOCYANATE
Point	74	DIISOCYANATES

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors

not applicable

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage ≥ than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Gas 1A	Flammable gas, category 1A
Aerosol 1	Aerosol, category 1
Aerosol 3	Aerosol, category 3
Press. Gas (Liq.)	Liquefied gas
Press. Gas	Pressurised gas
Carc. 2	Carcinogenicity, category 2
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Resp. Sens. 1	Respiratory sensitization, category 1
Skin Sens. 1	Skin sensitization, category 1
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H229	Pressurised container: may burst if heated.
H280	Contains gas under pressure; may explode if heated.
H351	Suspected of causing cancer.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
EUH204	Contains isocyanates. May produce an allergic reaction.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%

- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.
CALCULATION METHODS FOR CLASSIFICATION
Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.
Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.