

Safety Data Sheet

According to Annex II to REACH – Regulation 2020/878

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

1.1. Product identifier

Product name Universal Foam

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

Intended use Single-component polyurethane foam.

1.3. Details of the supplier of the safety data sheet

Name ROTHO BLAAS SRL
Full address Via dell'Adige N. 2/1
District and Country 39040 Cortaccia (BZ)
Italy

tel. +39 0471 818400

fax +39 0471 818484

e-mail address of the competent person

responsible for the Safety Data Sheet reach@rothoblaas.com

1.4. Emergency telephone number

For urgent inquiries refer to
UK NPIS +44 0344 892 0111
Ireland NPIC (01) 809 2566 (01) 809 2166

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.

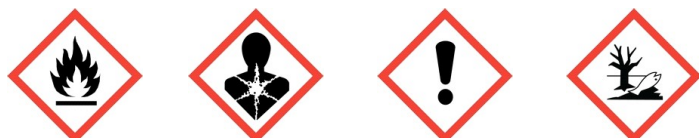
Hazard classification and indication:

Aerosol, category 1	H222 H229	Extremely flammable aerosol. Pressurised container: may burst if heated.
Carcinogenicity, category 2	H351	Suspected of causing cancer.
Reproductive toxicity, effects on or via lactation	H362	May cause harm to breast-fed children.
Acute toxicity, category 4	H332	Harmful if inhaled.
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 1B	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitization, category 1B	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, acute toxicity, category 1	H400	Very toxic to aquatic life.
Hazardous to the aquatic environment, chronic toxicity, category 1	H410	Very toxic to aquatic life with long lasting effects.

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.
H362	May cause harm to breast-fed children.
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.
H410	Very toxic to aquatic life with long lasting effects.
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 not expose to temperatures exceeding 50°C / 122°F.
P501	Dispose of contents / container according to the regulation in force.
P102	Keep out of reach of children.
P211	Do not spray on an open flame or other ignition source.
P260	Do not breathe dust / fume / gas / mist / vapours / spray.

Contains: Diphenylmethanediisocyanate, isomers and homologues
C-14-17 CLORINATED PARAFFINS

Additional information according to EC Regulation no. 552/2009 of 22 June 2009:

The use of this product may cause allergic reactions in people already sensitized to diisocyanates. People with asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation, unless a protective mask with a suitable gas filter (e.g. type A1 according to EN 14387) is used.

From 24 August 2023, appropriate training is required before industrial or professional use.

2.3. Other hazards

PBT substances contained:

C-14-17 CLORINATED PARAFFINS

The product does not contain substances with endocrine disrupting properties in concentration $\geq 0.1\%$.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
Diphenylmethanediisocyanate, isomers and homologues		
CAS 9016-87-9	$41 \leq x < 48$	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. 1B H334, Skin Sens. 1B H317
EC 618-498-9		STA Inhalation vapours: 11 mg/l
INDEX -		
C-14-17 CLORINATED PARAFFINS		
CAS 85535-85-9	$27 \leq x < 34$	Lact. H362, Aquatic Acute 1 H400 M=100, Aquatic Chronic 1 H410 M=10, EUH066
EC 287-477-0		
INDEX 602-095-00-X		
REACH Reg. 01-2119519269-33-xxxx		
Dimethyl ether		

CAS 115-10-6	$5 \leq x < 9,9$	Flam. Gas 1A H220, Press. Gas H280, Classification note according to Annex VI to the CLP Regulation: U
EC 204-065-8		
INDEX 603-019-00-8		
REACH Reg. 01-2119472128-37-xxxx		
Isobutane		
CAS 75-28-5	$5 \leq x < 9,9$	Flam. Gas 1A H220, Press. Gas H280, Classification note according to Annex VI to the CLP Regulation: C, U
EC 200-857-2		
INDEX 601-004-00-0		
REACH Reg. 01-2119485395-27-xxxx		
PROPANE		
CAS 74-98-6	$5 \leq x < 9,9$	Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: U
EC 200-827-9		
INDEX 601-003-00-5		
REACH Reg. 01-2119486944-21-xxxx		
Reaction mass of 2-ethylpropane-1,3-diol and 5-ethyl-1,3-dioxane-5-methanol and propylidynetrimeethanol		
CAS -	$3 \leq x < 5$	Eye Irrit. 2 H319
EC 904-153-2		
INDEX -		
REACH Reg. 01-2119488034-38-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: 23,00 %

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.

Storage class TRGS 510 (Germany):

2B

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

DEU	Deutschland	Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56
ESP	España	Límites de exposición profesional para agentes químicos en España 2021
FIN	Suomi	HTP-VÄRDEN 2020. Koncentrationer som befunns skadliga. SOCIAL - OCH HÄLSOVÄRDSMINISTERIETS PUBLIKATIONER 2020:25
GRC	Ελλάδα	Π.Δ. 26/2020 (ΦΕΚ 50/Α' 6.3.2020) Εναρμόνιση της ελληνικής νομοθεσίας προς τις διατάξεις των οδηγιών 2017/2398/ΕΕ, 2019/130/ΕΕ και 2019/983/ΕΕ «για την τροποποίηση της οδηγίας 2004/37/ΕΚ ``σχετικά με την προστασία των εργαζομένων από τους κινδύνους που συνδέονται με την έκθεση σε καρκινογόνους ή μεταλλαξιογόνους παράγοντες κατά την εργασία``»
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
NOR	Norge	Forskrift om endring i forskrift om tiltaksverdi og grenseverdi for fysiske og kjemiske faktorer i arbeidsmiljøet samt smitterisikogrupper for biologiske faktorer (forskrift om tiltaks- og grenseverdi), 21. august 2018 nr. 1255
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
ROU	România	Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru modificarea și completarea hotărârii guvernului nr. 1.093/2006
SVN	Slovenija	Pravilnik o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu (Uradni list RS, št. 100/01, 39/05, 53/07, 102/10, 43/11 – ZVZD-1, 38/15, 78/18 in 78/19)
EU		OEL EU Directive (EU) 2019/1831; Directive

TLV-ACGIH

Directive (EU) 2017/164; Directive 2000/39/EC; Directive 98/24/EC; D
ACGIH 2021

Diphenylmethanediisocyanate, isomers and homologues

Threshold Limit Value								
Type	Country	TWA/8h		STEL/15min		Remarks / Observations		
		mg/m3	ppm	mg/m3	ppm			
OEL	EU		0,005					
Predicted no-effect concentration - PNEC								
Normal value in fresh water				1		mg/l		
Normal value in marine water				0,1		mg/l		
Normal value for water, intermittent release				10		mg/l		
Normal value of STP microorganisms				1		mg/l		
Normal value for the terrestrial compartment				1		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		0.05 mg/m3		0.025 mg/m3		0.1 mg/m3		0.05 mg/m3

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Threshold Limit Value								
Type	Country	TWA/8h		STEL/15min		Remarks / Observations		
		mg/m3	ppm	mg/m3	ppm			
AGW	DEU	6	0,3	48	2,4	INHAL	11	
AGW	DEU	6	0,3	48	2,4	SKIN	11	

Dimethyl ether

Threshold Limit Value								
Type	Country	TWA/8h		STEL/15min		Remarks / Observations		
		mg/m3	ppm	mg/m3	ppm			
VLEP	ITA	1920	1000					
TLV-ACGIH		1920	1000					
Predicted no-effect concentration - PNEC								
Normal value in fresh water				0,155		mg/l		
Normal value in marine water				0,016		mg/l		
Normal value for fresh water sediment				0,681		mg/kg/d		
Normal value for marine water sediment				0,069		mg/kg/d		
Normal value for water, intermittent release				1,549		mg/l		
Normal value of STP microorganisms				160		mg/l		
Normal value for the terrestrial compartment				0,045		mg/kg/d		
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			VND	471 mg/m3			VND	1894 mg/m3

PROPANE

Threshold Limit Value						
Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	1800	1000	7200	4000	

MAK	DEU	1800	1000	7200	4000
VLA	ESP		1000		
HTP	FIN	1500	800	2000	1100
TLV	GRC	1800	1000		
TLV	NOR	900	500		
NDS/NDSch	POL	1800			
TLV	ROU	1400	778	1800	1000
MV	SVN	1800	1000	7200	4000

Reaction mass of 2-ethylpropane-1,3-diol and 5-ethyl-1,3-dioxane-5-methanol and propylidynetrimethanol

Predicted no-effect concentration - PNEC								
Normal value in fresh water				0,743	mg/l			
Normal value in marine water				0,0743	mg/l			
Normal value for water, intermittent release				0,743	mg/l			
Normal value of STP microorganisms				100	mg/l			
Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				2,5 mg/kg bw/d				
Inhalation				4,4 mg/m3				14,6 mg/m3
Skin				2,5 mg/kg bw/d				4,2 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.

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).

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.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	aerosol	

Colour	yellowish	
Odour	characteristic	
Odour threshold	Not applicable	
Melting point / freezing point	Not available	Method:ISO 3016 Substance:Diphenylmethanediisocyanate, isomers and homologues Temperature: <0 °C
Initial boiling point	Not applicable	
Flammability	flammable gas	
Lower explosive limit	1,5 % (v/v)	
Upper explosive limit	16 % (v/v)	
Flash point	Not applicable	Method:DIN 53171 Substance:Diphenylmethanediisocyanate, isomers and homologues Temperature: >200 °C
Auto-ignition temperature	226 °C	Remark:1 013 hPa Substance:Dimethyl ether
pH	Not applicable	Reason for missing data:not soluble in water
Kinematic viscosity	Not applicable	Method:DIN 53019 Concentration: ≥200 mPa*s % Substance:Diphenylmethanediisocyanate, isomers and homologues
Solubility	insoluble in water	
Partition coefficient: n-octanol/water	Not available	
Vapour pressure	<0,7 MPa (20 °C)	
Density and/or relative density	1	
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		
Evaporation rate	Not available	Reason for missing data:the propellant is released, the extruded PU foam does not evaporate.
Explosive properties	Not available	Reason for missing data:The product is not explosive but the formation of explosive air/gas mixtures is possible.

SECTION 10. Stability and reactivity

10.1. Reactivity

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

Diphenylmethanediisocyanate, isomers and homologues
Reacts with: water,acids,alcohols,amines,bases.

10.2. Chemical stability

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

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SADT >200°C/392°F.

10.3. Possibility of hazardous reactions

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

Diphenylmethanediisocyanate, isomers and homologues
Risk of explosion on contact with: water,acids,alcohols,amines,bases.

10.4. Conditions to avoid

Avoid overheating.

Diphenylmethanediisocyanate, isomers and homologues
Avoid exposure to: high temperatures, moisture.

Dimethyl ether

Avoid exposure to: heat, naked flames, electrostatic discharges.

10.5. Incompatible materials

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

Diphenylmethanediisocyanate, isomers and homologues
Keep away from: water, acids, alcohols, amines, bases.

Dimethyl ether

Avoid contact with: strong oxidising agents, natural rubbers, oxygen.

10.6. Hazardous decomposition products

Information not available

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

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

Information not available

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

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation - mists / powders) of the mixture:	2,4 mg/l
ATE (Oral) of the mixture:	Not classified (no significant component)
ATE (Dermal) of the mixture:	Not classified (no significant component)

Diphenylmethanediisocyanate, isomers and homologues

LD50 (Oral):	> 2000 mg/kg ratto, maschio/femmina
LD50 (Dermal):	> 9400 mg/kg coniglio, maschio/femmina
LC50 (Inhalation vapours):	> 0,31 mg/l, 4h ratto, maschio/femmina (polvere/nebbia)
STA (Inhalation vapours):	11 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)

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LD50 (Oral):	> 4000 mg/kg Rat - Wistar
LC50 (Inhalation vapours):	> 48,17 mg/l Rat

Dimethyl ether

LC50 (Inhalation mists/powders):	164000 ppm/4h Rat
LC50 (Inhalation vapours):	309 mg/l/4h Rat

Reaction mass of 2-ethylpropane-1,3-diol and 5-ethyl-1,3-dioxane-5-methanol and propylidynetrimethanol

LD50 (Oral):

2000 mg/kg Rat

LD50 (Dermal):

10000 mg/kg bw Rabbit

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

Sensitising for the respiratory system

Respiratory sensitization

Information not available

Skin sensitization

Information not available

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Suspected of causing cancer

REPRODUCTIVE TOXICITY

May cause harm to breast-fed children.

Adverse effects on sexual function and fertility

Information not available

Adverse effects on development of the offspring

Information not available

Effects on or via lactation

Information not available

STOT - SINGLE EXPOSURE

May cause respiratory irritation

Target organs

Information not available

Route of exposure

Information not available

STOT - REPEATED EXPOSURE

May cause damage to organs

Target organs

Information not available

Route of exposure

Information not available

ASPIRATION HAZARD

Excluded because the aerosol does not allow the accumulation of a significant amount of product in the mouth

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

This product is dangerous for the environment and highly toxic for aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

Dimethyl ether

LC50 - for Fish > 4,1 mg/l/96h *Poecilia reticulata*

EC50 - for Crustacea > 4,4 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants 154,9 mg/l/72h met. ECOSAR

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LC50 - for Fish > 5000 mg/l/96h *Alburnus alburnus*

EC50 - for Crustacea 0,0077 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants > 3,2 mg/l/72h *Pseudokirchnerella subcapitata*

Chronic NOEC for Crustacea 0,01 mg/l *Daphnia magna*

Diphenylmethanediisocyanate, isomers and homologues

LC50 - for Fish > 1000 mg/l/96h *Danio rerio*

EC50 - for Crustacea > 1000 mg/l/24 h *Daphnia magna*

EC50 - for Algae / Aquatic Plants > 1640 mg/l/72h *Scenedesmus subspicatus*

Chronic NOEC for Crustacea > 10 mg/l *Daphnia magna* (21 d)

Reaction mass of 2-ethylpropane-1,3-diol and 5-ethyl-1,3-dioxane-5-methanol and propylidynetrimethanol

LC50 - for Fish 1250 mg/l/96h *Brachydanio rerio* - OECD 203

EC50 - for Crustacea < 125 mg/l/48h *Daphnia magna* - OECD Guideline 202

EC50 - for Algae / Aquatic Plants 144 mg/l/72h *Selenastrum capricornutum* - OECD test guideline 201

Chronic NOEC for Fish 500 mg/l *Brachydanio rerio*

Chronic NOEC for Algae / Aquatic Plants 62 mg/l *Selenastrum capricornutum*

12.2. Persistence and degradability

Dimethyl ether

Solubility in water 45,6 g/l 25 °C

NOT rapidly degradable

PROPANE

Solubility in water 0,1 - 100 mg/l

Rapidly degradable

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Solubility in water < 0,1 mg/l

NOT rapidly degradable

Diphenylmethanediisocyanate, isomers and homologues

NOT rapidly degradable

Reaction mass of 2-ethylpropane-1,3-diol and 5-ethyl-1,3-dioxane-5-methanol and propylidynetrimethanol

Solubility in water 1000 g/l 20 °C - pH 3,7

Entirely degradable

12.3. Bioaccumulative potential

Dimethyl ether

Partition coefficient: n-octanol/water 0,07 25 °C

PROPANE

Partition coefficient: n-octanol/water 1,09

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Partition coefficient: n-octanol/water 7,2

Diphenylmethanediisocyanate, isomers and homologues

Partition coefficient: n-octanol/water 4,51

BCF 200 Cyprinus carpio (28 d). OECD Guideline 305 E

12.4. Mobility in soil

C-14-17 CLORINATED PARAFFINS

Partition coefficient: soil/water 5

12.5. Results of PBT and vPvB assessment

PBT substances contained:

C-14-17 CLORINATED PARAFFINS

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

EWC: 160504*.

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.

SECTION 14. Transport information**14.1. UN number**

ADR / RID, IMDG, 1950

IATA:

14.2. UN proper shipping name

ADR / RID: AEROSOLS

IMDG: AEROSOLS (C-14-17 CLORINATED PARAFFINS)

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: Environmentally
Hazardous



IMDG: Marine Pollutant



IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID: HIN - Kemler: --

Limited
Quantities: 1
L

Tunnel
restriction
code: (D)

IMDG: Special Provision: -

EMS: F-D, S-U

Limited
Quantities: 1
L

IATA: Cargo:

Maximum
quantity: 150
Kg
Maximum
quantity: 75
Kg
A145, A167,
A802

Packaging
instructions:
203
Packaging
instructions:
203

Pass.:

Special Instructions:

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

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-E1

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

Product
Point 40

Contained substance
Point 75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors
Not applicable

Substances in Candidate List (Art. 59 REACH)
C-14-17 CLORINATED PARAFFINS
REACH Reg.: 01-2119519269-33-xxxx

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.

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017)

WGK 3: Severe hazard to waters

Additional information according to EC Regulation no. 552/2009 of 22 June 2009:

The use of this product may cause allergic reactions in people already sensitized to diisocyanates. People with asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation, unless a protective mask with a suitable gas filter (e.g. type A1 according to EN 14387) is used.

From 24 August 2023, appropriate training is required before industrial or professional use.

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	Pressurised gas
Press. Gas (Liq.)	Liquefied gas
Carc. 2	Carcinogenicity, category 2
Lact.	Reproductive toxicity, effects on or via lactation
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. 1B	Respiratory sensitization, category 1B
Skin Sens. 1B	Skin sensitization, category 1B
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H229	Pressurised container: may burst if heated.
H280	Contains gas under pressure; may burst if heated.
H351	Suspected of causing cancer.
H362	May cause harm to breast-fed children.
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.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
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)
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 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)
- 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.