

SAFETY DATA SHEET
According to Annex II to REACH - Regulation 2020/878 and to Annex II to UK REACH

TURBO FOAM 750 ML
cod.85215001
Versione: 3/ EN

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Date of print: 17/01/2023
Data of review: 08/08/2022

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

- 1.1 Product identifier:**
Mixture identification:
Trade name: TURBO FOAM 750 ML
Trade code: cod. 85215001
UFI: XH30-P0RQ-700H-SPCS
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Recommended use: Self-expanding polyurethane foam for filling, insulating and insulating joints, joints and cavities.
Uses advised against: This product is not recommended for all those uses not specifically identified on the label.
- 1.3 Details of the supplier of the safety data sheet:**
Company:
SARATOGA INT. SFORZA SPA - Via Edison 76 - 20090 Trezzano s/Naviglio (MI) - ITALY
Tel. +39 02 445731 Fax +39 02 4452742
Competent person responsible for the safety data sheet:
trading@saratogasforza.com
- 1.4 Emergency telephone number**
CAV - Ospedale Pediatrico "Bambino Gesù" - Roma - Tel. +39 06 68593726 (h24)
CAV - Azienda Ospedaliero-Universitaria Foggia - Foggia - Tel. +39 0881 732326 (h24)
CAV - Azienda Ospedaliera "A. Cardarelli" - Napoli - Tel. +39 081 7472870 (h24)
CAV - Policlinico "Umberto I" - Roma - Tel. +39 06 4450618 (h24)
CAV - Policlinico "A. Gemelli" - Roma - Tel. +39 06 3054343 (h24)
CAV - Azienda Ospedaliera "Careggi" U.O. Tossicologia Medica - Firenze - Tel. +39 055 7947819(h24) CAV
- Centro Nazionale di Informazione Tossicologica - Pavia - Tel. +39 0382 24444
(h24) CAV - Ospedale "Niguarda Ca' Granda" - Milano - Tel. +39 02 66101029 (h24)
CAV - Azienda Ospedaliera "Papa Giovanni XXIII" - Bergamo - Tel. +39 800 883300 (h24)
CAV - Azienda Ospedaliera Integrata Verona - Verona - Tel. +39 800 011858 (h24)

***SECTION 2 HAZARDS IDENTIFICATION**

- 2.1 Classification of the substance or mixture**
- 2.1.1 Classification according to EU Regulation no. 1272/2008**
Aerosol 1 H222, H229
Skin Irrit. 2 H315
Skin Sens. 1 H317
Eye Irrit. 2 H319
Acute Tox. 4 H332
Resp. Sens. 1 H334
STOT SE 3 H335
Carc. 2 H351
STOT RE 2 H373
Lact. H362
Aquatic Chronic 1 H410
Aquatic Acute 1 H400
The full text of "H-phrases" is stated in Section 16 of this Safety Data Sheet.
Classification notes:
Note: The calculation method takes into account the requirements of the CLP Regulation for the classification of aerosols in line with paragraph 1.1.3.7 of Annex I, Part 1, CLP.
- 2.1.2 The most serious adverse physico-chemical effects**
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C.
Build-up of explosive mixtures possible without sufficient ventilation.

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2.1.3 The most serious adverse effects on human health

Harmful if inhaled. May cause damage to organs through prolonged or repeated exposure. Causes serious eye irritation. May cause respiratory irritation. Causes skin irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. Suspected of causing cancer. May cause harm to breast-fed children.

Persons with airways hypersensitivity (e.g. asthma, chronic bronchitis) must not come into contact with the product. Symptoms may also occur with overexposure airways after a few hours. Dust, vapours and aerosols are harmful to respiratory tract.

2.1.4 The most serious adverse effects on the environment

Very toxic to aquatic life with long lasting effects.

2.2 Label elements

2.2.1 The label elements in accordance with Regulation no. (EC) no. 1272/2008



DANGER

H222 Extremely flammable aerosol.

H229 Pressurised container: May burst if heated.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

H351 Suspected of causing cancer.

H362 May cause harm to breast-fed children.

H410 Very toxic to aquatic life with long lasting effects.

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

P102 Keep out of reach of children.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Pressurized container: do not pierce or burn, even after use.

P260 Do not breathe vapours.

P263 Avoid contact during pregnancy and while nursing.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves and protective clothing. Protect eyes and face.

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

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.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P405 Store locked up.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F .

P501 Dispose of the contents and container in authorized collection centers.

EUH204 Contains isocyanates. May produce an allergic reaction.

Content: Diphenylmethanediisocyanate, isomers and homologues; alkanes, C14-17, chloro

In case of insufficient ventilation may form explosive mixtures. In case of inadequate ventilation wear respiratory protection.

Information according to Commission REGULATION (EC) No 552/2009 of 22 June 2009, that must appear on the label of the product.

Persons already sensitized to diisocyanates may develop allergic reactions when using this product. Persons suffering from 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 an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

Information according to Commission Regulation (EC) No. 2020/1149, which must appear on the label of a product containing diisocyanates in a concentration $\geq 0.1\%$

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

2.3 Other hazards

Medium chain chlorinated paraffins (MCCP) [UVCB substances consisting of more than or equal to 80% of linear chloroalkanes with a carbon chain length ranging from C14 to C17]: the substance has been included in the Candidate List for possible inclusion in Annex XIV of REACH. (published in accordance with Article 59 (10) of the REACH Regulation)

Reason for inclusion: PBT (Article 57d); vPvB (Article 57e)

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

2.4 Further information

Not to be used in a range of ignition sources.

Further information necessary to be added to the product label complying with other regulations, see Section 15.

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***SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS**

3.2

Mixtures

Prepolymer (composition polyol and polymeric isocyanate) with freon-free low-boiling propulsion medium

Hazardous substances:	Index No. EINECS. CAS No. Registration No.	Content (% ww)	Classification acc. (EC) No. 1272/2008
Diphenylmethanediisocyanate, isomers and homologues ¹⁾ *	- 618-498-9*** 9016-87-9 -	30-60	Carc. 2 H351 Acute Tox. 4 H332 STOT RE 2 H373 Eye Irrit. 2 H319 STOT SE 3 H335 Skin Irrit. 2 H315 Resp. Sens. 1 H334 Skin Sens. 1 H317
alkanes, C14-17, chloro; chlorinated paraffins, C14-17 ²⁾	602-095-00-X 287-477-0 85535-85-9 01-2119519269-33-xxxx	≥ 30	Lact. H362 Aquatic Acute 1 H400 Aquatic Chronic 1 H410
Reaction mass of 2-ethylpropane-1,3-diol and 5-ethyl-1,3-dioxane-5-methanol and propylidynetrimethanol	- 904-153-2 - 01-2119488034-38-xxxx	1-<3	Eye Irrit. 2 H319 Repr. 2 H361 fd
Isobutane**	601-004-00-0 200-857-2 75-28-5 -	5-10	Flam. Gas 1 H220 Press. Gas H280
Dimethylether*	603-019-00-8 204-065-8 115-10-6 01-2119472128-37-xxxx	5-10	Flam. Gas 1 H220 Press. Gas H280
Propane	601-003-00-5 200-827-9 74-98-6 -	1-5	Flam. Gas 1 H220 Press. Gas H280

Full text of H-phrases is described in Section 16 of this Safety Data Sheet

¹⁾ The substance Methylendiphenyl diisocyanate (MDI) including some specific isomers: was included (EU Regulation 552/2009) in Annex XVII (item 56) of the REACH Regulation (restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles).

Diisocyanates, O = C=N-R-N = C=O: included (EU Regulation 2020/1149) in Annex XVII (item 74) of the REACH Regulation (restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles)

²⁾ This substance is identified as a substance of very high concern. Reason for inclusion: PBT (Article 57d); vPvB (Article 57e)

* Substance with exposure limit, see SECTION 8

** The substance is not classified as a substance (CMR) carcinogenic, mutagenic or toxic for reproduction. The substance does not contain more than 0.1% 1,3-butadiene or any other substances classified as CMR."

*** This number is not an EC number. This is a Leaf. Well. which has no legal significance.

SECTION 4 FIRST AID MEASURES

4.1. Description of first aid measures

General information

In the case of health problems or if in doubt, seek medical advice and provide information from this safety data sheet. In case of unconsciousness place patient in recovery position and await ambulance.

In case of inhalation:

Stop exposure to vapours and relocate patient from exposure to the fresh air. . Ensure the patient is calm and rests, avoiding physical exertion. Avoid exposure to cold. In case of breathing difficulties seek medical help.

In case of eye contact:

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Remove contact lenses if used. Immediately rinse eyes with clean and lukewarm running water for at least 15 min. Eyes should be wide open especially to rinse under eyes lids. Seek medical advice if the pain or eye redness persists.

In case of contact with skin:

Remove contaminated clothing, rinse contaminated skin with soap under running water. If there are signs of a strong irritation (redness of the contaminated skin) or skin damage, seek medical advice.

In case of ingestion:

Not anticipated. An aerosol spray.

Calm the victim and keep him/her in warm. Seek medical advice immediately and show product label or this safety data sheet.

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

In case of inhalation irritation of mucous membranes of the airways can occur in sensitive people.

Local skin irritation (redness, itchiness). Degreases and dries skin.

Local eye conjunctiva irritation (redness, burning eyes, eye watering)

May cause irritation to the gastrointestinal tract accompanied by abdominal pain and nausea, even vomiting and diarrhoea can occur.

4.3 Indication of any immediate medical attention and special treatment needed

In standard use immediate medical attention is not needed required only if the symptoms become more pronounced.

SECTION 5 FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media:

Carbon dioxide (CO₂), multipurpose powders, sand, soil

Unsuitable extinguishing media:

Water in small quantities and a full water jet. Water can be used only for cooling products (containers) near the fire.

5.2 Special hazards arising from the substance or mixture:

Product contains easily flammable vapours and liquids.

In case of fire smoke is created and carbon oxides (CO and CO₂) can occur. Incomplete combustion produces smoke and toxic gases (e.g. CO, NO, HCN), various hydrocarbons, aldehydes, soot.

Do not inhale combustion gases. As gases are usually heavier than air they gather at the lowest points and there is risk of re-ignition or explosion.

The propellant gas explosive limit with air at standard temperature and vapour or mist volume is 1.5 – 1.6 %.

Fire residues and contaminated fire extinguishing liquid must be disposed-off according to local rules and regulations. Remove products away from fire or at least cool them with a water jet.

5.3 Advice for fire fighters:

In case of fire, wear suitable protective equipment – respiratory/breathing apparatus.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non - emergency personnel

Avoid contact with eyes and skin. Do not inhale any gases/vapours/aerosols. Ensure effective ventilation. Due to the potential exposure to hazardous agents, wear suitable protective equipment (resistant gloves, protective glasses and clothing). Eliminate all sources of ignition. Switch off all electrical devices that can create sparks (Sections 7 and 8). Gas vapours are heavier than air. Do not allow vapours to drain.

6.1.2 For emergency responders

See section 8

6.2 Environmental precautions

Avoid draining into sewage/surface water/ground water.

6.3 Methods and material for containment and cleaning up

Cover the contaminated area with damp soil or sand and allow at least for 30 minutes for this to take effect. Then remove mechanically.

PU CLEANER product or organic solvents such as acetone can remove uncured foam.

6.4 Reference to other sections

See sections 7, 8 and 13

SECTION 7 HANDLING AND STORAGE

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7.1 Precautions for safe handling

Avoid contact with skin and eyes. Do not inhale any gases/vapours/aerosols. Ensure effective ventilation. Due to the potential exposure to hazardous agents, wear suitable protective equipment (resistant gloves, protective glasses and clothing). Do not smoke. Switch off all electrical devices that can create sparks (Sections 7 and 8). Implement precautionary measures to prevent the accumulation of an electrostatic charge. Work in accordance with an instruction manual - special protective measures are not necessary.

Preventive measures to protect the environment:

If used normally not necessary. In case of accident see section 6.

Specific requirements or rules relating to the substance or mixture:

Store in a cool dry place. Keep away from heat sources.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool dry place. Keep away from heat sources. Avoid accumulation of static electricity. No smoking.

Requirements on type of material used in the packaging / container:

Aerosol cans –material FE (40) or ALU (41). Do not store with food, beverages and animal feed. Keep out of reach of children The products are under constant pressure! Keep out of direct sunlight and do not expose to temperatures exceeding +50 °C

7.3 Specific end use(s)

The mixture is applied by spraying on the areas to be filled with PU foam.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Substances for which following concentration of occupational exposure limit values are set (COMMISSION DIRECTIVE 2000/39/EC as amended)

Chemical name	CAS Number	Eight hours	Short-term
dimethylether	115-10-6	1920	-

8.1.2 Values DNEL and PNEC

CAS: 101-68-8: 4,4'-methylenediphenyl diisocyanate

DNEL	Consumer				Workers			
Route	Acute Local effects	Acute Systemic effects	Chronic Local effects	Chronic Systemic effects	Acute Local effects	Acute Systemic effects	Chronic Local effects	Chronic Systemic effects
Oral		20 mg/kg bw/d	n.a.	n.a.				
Inhalation	0.05 mg/m ³	0.05 mg/ m ³	0.025 mg/m ³	0.025 mg/m ³	0.1 mg/m ³	0.1 mg/m ³	0.05 mg m ³	0.05 mg m ³
Dermal	17.2 mg/cm ²	25 mg/kg bw/d	n.a.	n.a.	28.7 mg/cm ²	50 mg/kg bw/d	n.a.	n.a.

PNEC

Fresh water	1 mg/l
Marine water	0.1 mg/l
sporadic release	10 mg/kg
Sewage Treatment Plant	1 mg/kg
sediment (Fresh water):	PNEC sediment: As PMDI reacts with water, the contact between water and TDI must be strictly controlled. In addition, PMDI polymerizes in the presence of water, and therefore exposure of PMDI to sediments is likely to be negligible. PNEC sediments regarding the effect of PMDI cannot be derived.
Soil:	1 mg/kg of soil
Oral:	Reliable oral data are not available regarding the effects of PMDI on birds. Bird exposure is not expected and data from animal experiments indicate that PMDI oral toxicity is low.

CAS: 85535-85-9: alkanes, C14-17, chloro

DNEL	Consumer				Workers			
Route	Acute Local effects	Acute Systemic effects	Route	Acute Local effects	Acute Systemic effects	Route	Acute Local effects	Acute Systemic effects
Oral								

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Inhalation			0.58 mg/kg bw/d	2 mg/m3				6.7 mg/m3
Dermal				28.75 mg/kg bw/d				47.9 mg/kg bw/d

PNEC

Fresh water	1 µg/l
Marine water	0.2 µg/l
sediment (Fresh water):	5 mg / kg
sediment (Marine water):	1 mg / kg
Sewage Treatment Plant	80 mg/l
Soil	0.34 mg/kg
sporadic release:	10.5 mg/kg (soil)

Explanations:

bw / d - body weight per day

n.a. - not applicable

TDI - toluene diisocyanate

PMDI - polymeric diphenylmethane diisocyanate

Data obtained from safety data sheets of raw material suppliers and from other external sources.

DNELs: Derived no-effect level

PNEC: Estimation of the concentration at which no adverse effects occur

8.1.3 Recommended measurements methods in the work environment

Gas chromatography

8.1.4 The Values of biological exposure tests (BET)

Not listed

8.1.5 Exposure scenarios

They are not processed for the mixture. Relevant information from the Chemical Safety Reports of the registered substances contained is given in the body of the safety data sheet.

8.2 Exposure controls

8.2.1 Appropriate engineering controls

No special equipment is required provided that the product is handled in accordance with the general principles of hygiene and public safety. It is recommended that the product is used in well-ventilated areas.

8.2.2 Individual protection measures, such as personal protective equipment

The personal protective equipment used must comply with Regulation (EU) 2016/425 and Commission Directive (EU) 2019/1832).

8.2.2.1 A General hygienic and protective measures

While working with the product Do not eat, drink or smoke. Avoid contact with eyes and skin. When you stop working with the product wash your hands. Pregnant women should avoid inhalation and skin contact.

8.2.2.2 Respiratory protection

This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

8.2.2.3 Hand protection

Suitable materials for safety gloves; EN 374 :

Polychloroprene - CR: thickness $\geq 0,5$ mm; breakthrough time ≥ 480 min

Nitrile rubber - NBR: thickness $\geq 0,35$ mm; breakthrough time ≥ 480 min.

Butyl rubber - IIR: thickness $\geq 0,5$ mm; breakthrough time ≥ 480 min

Fluorinated rubber - FKM: thickness $\geq 0,4$ mm; breakthrough time ≥ 480 min

Recommendation: contaminated gloves should be disposed of.

8.2.2.4 Eye protection

Protective glasses

8.2.2.5 Protecting skin (the whole body)

Protective work clothing; do not eat, drink or smoke while working; Remove soiled or contaminated clothing. Wash clothing before re-using. After work, Wash hands with warm water and soap and Use suitable skin care products.

8.2.3 Environmental exposure controls

Not necessary when used as required, avoid entering into surface waterways and sewers.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	liquid in the form of aerosol
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Colour	Light yellow
Odour	Not specified
Odour Threshold	Not specified
Melting point/freezing point	Not assessed at the foam MDI: < 0 °C, ISO 3016
Boiling point/boiling range	Not specified
Flammability	extremely flammable aerosol
Lower and upper explosion limit	16 vol % (liquefied gas) 1.5 vol % (liquefied gas)
Flash point	MDI: > 200 °C, DIN 53171
Auto-ignition temperature	226 °C at 1 013 hPa (dimethylether)
Decomposition temperature	The mixture is not self-reactive.
pH	Not applicable
Kinematic viscosity	For the mixture not known MDI: >= 200 mPa.s at 20 °C, DIN 53019
Solubility In water	insoluble, reacts with water
In organic solvents	soluble in polar organic solvents before curing
Partition coefficient: n-octanol/water	The product is a mixture.
Vapour pressure	< 0,7 MPa (at 20 °C) - liquefied gas; < 0,0001 hPa - MDI
Density and/or relative density	1.1 g/cm ³ - without the propulsion gas
	1.0 g/cm ³ - included propulsion gas
Relative vapour density	unknown
Particle characteristics (solids)	The product is not a solid.
Evaporation rate	propellant is released, the emerging PU-foam does not evaporate
Explosive properties	Product is not explosive but it is possible to form explosive mixtures with air.
Oxidising properties	unknown

9.2 Other information

ignition temperature	propellant : > 350°C MDI: > 500 °C, DIN 51794
Evaporation rate	propellant is released, the emerging PU-foam does not evaporate
Organic solvents content (propulsion gas)	0.3 kg/kg of product

The vapor density of the propellant is twice the density of air - the vapors stick to the ground.

SECTION 10 STABILITY AND REACTIVITY

10.1 Reactivity

The product under standard conditions of use is stable and does not degrade.

10.2 Chemical stability

The product under standard conditions of use is stable and does not degrade.

10.3 Possibility of hazardous reactions

Reacts with substances containing active hydrogen, including water - and / or air humidity, carbon dioxide is produced and increases the pressure in closed containers. Also strong acids and strong oxidizing agents, e.g. hydrogen peroxide, nitric acid ...

10.4 Conditions to avoid

Temperatures above the flash point, open flames, static electricity, under standard conditions of use hazardous reactions are not known.

10.5 Incompatible materials

Strong acids, strong oxidizing agents, water. Eg.: Hydrogen peroxide, nitric acid ...

10.6 Hazardous decomposition products

Under standard usage does not occur.

Incomplete combustion creates smoke and toxic gases (eg. CO, NO, HCN), various hydrocarbons, aldehydes and soot. Inhalation is hazardous.

10.7 Further information

Potentially dangerous exothermic reaction

in contact with water, the temperature and pressure increases (inside the can)

Changes in physical properties effecting stability and safety of the mixture

If Increased pressure and temperature (in a can =inside of the packaging) there is a risk of an aerosol can bursting.

Hazardous degradation products when in contact with water

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When sprayed, reacts with water and curing into PU foam.

SECTION 11 TOXICOLOGICAL INFORMATION

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

11.1.1 Mixture

For mixture (content of cartridge) are not relevant toxicological data available. The mixture was evaluated by calculation methods

Acute toxicity:	Harmful if inhaled.
Skin corrosion/ irritation:	Causes skin irritation.
Serious eye damage/irritation:	Causes serious eye irritation.
Skin sensitisation/ Respiratory sensitisation:	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Germ cell mutagenicity:	Data not available
Carcinogenicity:	Suspected of causing cancer.
Reproductive toxicity	May cause harm to breast-fed children
STOT-single exposure:	May cause respiratory irritation.
STOT-repeated exposure:	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard:	does not meet the classification criteria

11.1.2 Mixture components

No information

11.2 Information on other hazards

To our knowledge, it does not contain substances identified as endocrine disruptors

11.3 Experience from human exposure

4,4'-methylenediphenyl diisocyanate:

Special features / effects: There is a risk of concentration independent irritation effect on eyes, nose, throat and respiratory track if over exposed. There can be late manifestations of problems and hypersensitivity development (difficulty in breathing, coughing, asthma). Hypersensitive individuals may experience reactions at very low concentrations of isocyanate, also still below the values NPK-P. If prolonged contact with the skin, there are possible effects of dryness and irritation.

11.4 Further information:

Contradiction between the data for components of the product and the actual effect on humans. The mixture is evaluated by conventional computational methods.

*SECTION 12 ECOLOGICAL INFORMATION

12.1 Toxicity

For mixture (content of cartridge) are not relevant toxicological data available.

12.1.2 Toxicity of the mixture components to aquatic organisms

Diphenylmethanediisocyanate

Acute toxicity to fish:

LC50> 1,000 mg / l Danio rerio; static test; exposure: 96 h (OECD 203)

Acute toxicity to daphnia:

EC50> 1,000 mg / l Daphnia magna; static test; exposure: 24 hours (OECD 202)

Chronic toxicity to daphnia:

NOEC (reproduction)> 10 mg / l Daphnia magna; exposure: 21 days, (OECD 202)

Acute toxicity to algae:

ErC50> 1,640 mg / l scenedesmus subspicatus; Growth inhibition, exposure: 72 h., (OECD 201)

Acute toxicity to bacteria: EC50> 100 mg / l activated sludge;

Respiratory inhibition; exposure: 3 h., (OECD 209)

CAS 85535-85-9 alkanes, C14-17, chloro

Concentrations in the atmosphere are likely to be very small due to low volatility. Estimated atmospheric half life is 1 - 2 days. Biodegradation in soil: Studies conducted on C14.5 & C15.4 (average C chain length) with 43.5% & 50% chlorination showed 57% and 51% degradation of the test substance after 36 hours. Biodegradation in water and sediments: Simulation tests conducted on two C16 chlorinated paraffins (containing 35% Cl2 & 58% Cl2) gave a half-life (DT50) of 12 days and 58 days in freshwater sediment respectively

12.2 Persistence and degradability

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Biodegradability:

Diphenylmethanediisocyanate

Type of test: aerobic

The inoculum: activated sludge

Biodegradation: 0%, 28 d, ie. is not potentially degradable

Method: OECD 302 C for testing

Pursuant the test results of biodegradability this product is not readily biodegradable.

CAS 85535-85-9 alkanes, C14-17, chloro

Concentrations in the atmosphere are likely to be very small due to low volatility. Estimated atmospheric half life is 1 - 2 days.

Biodegradation in soil: Studies conducted on C14.5 & C15.4 (average C chain length) with 43.5% & 50% chlorination showed 57% and 51% degradation of the test substance after 36 hours.

Biodegradation in water and sediments: Simulation tests conducted on two C16 chlorinated paraffins (containing 35% Cl2 & 58% Cl2) gave a half-life (DT50) of 12 days and 58 days in freshwater sediment respectively

12.3 Bioaccumulative potential

Diphenylmethanediisocyanate

Bioconcentration factor (BCF): < 14

Type: Cyprinus carpio (carp)

duration of exposure: 42 d

Concentration: 0,2 mg/l

Method: OECD 305 C for testing

Significantly does not accumulate in organisms.

Substance hydrolyzes in water rapidly.

Study of the hydrolysis products.

CAS 85535-85-9 alkanes, C14-17, chloro

The product has potential for limited bioaccumulation. (BCF <2000 L/kg, BMF <1)

12.4 Mobility in soil

Is very limited due to chemical reaction with water to form insoluble product - PU foam

- distribution into the environment not specified

- surface tension not specified

- absorption or desorption not specified

12.5 Results of PBT and vPvB assessments

Medium chain chlorinated paraffins (MCCP) [UVCB substances consisting of more than or equal to 80% of linear chloroalkanes with a carbon chain length ranging from C14 to C17]: the substance has been included in the Candidate List for possible inclusion in Annex XIV of REACH. (published in accordance with Article 59 (10) of the REACH Regulation)

Reason for inclusion: PBT (Article 57d); vPvB (Article 57e)

12.6 Endocrine disrupting properties

To our knowledge, it does not contain substances identified as endocrine disruptors

12.7 Other adverse effects

Avoid (Do not allow) propellants entering drains. Isocyanate reacts with water at the interface with formation of CO2 and forms a solid insoluble substance with high melting point (polyurea). This reaction is strongly supported by surface-active agents /surfactants (e.g. liquid soaps) or water-soluble solvents. As per so far presented experience polyuria is still inert and non-degradable.

SECTION 13 DISPOSAL CONSIDERATION

13.1 Waste treatment methods

All Waste must be handled in accordance with national regulations.

Do not mix with household waste. This is a hazardous waste.

13.1.1 The potential risk in waste disposal.

no significant risk at disposal, but empty containers/cans may contain unreacted components.

13.1.2 Disposal methods of the mixture

Uncured material to be treated as hazardous waste.

Aerosol cans with the contents remains must be disposed of as hazardous waste, eg. in a hazardous waste incinerator

Recommended cleaning agent:

PU foam cleaner for uncured foam. Cured foam can only be removed mechanically.

13.1.3 Recommended waste classification

Mixture

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Uncured material: eg. 080409*

Cured material: eg.: 080410

Packaging

15 01 11*

16 05 04*

15 01 04

17 04 05

SECTION 14 TRANSPORT INFORMATION

14.1	UN number or ID number	UN 1950
14.2	UN proper shipping name	AEROSOLS
14.3	Transport hazard class (es)	2
14.4	Packing group	-
14.5	Environmental hazards	yes
14.6	Special precautions for users	NOT APPLICABLE
14.7	Maritime transport in bulk according to IMO instruments	NOT APPLICABLE
14.8	Land transport ADR/RID	
	Class/classification code	2 (5F)
	Packing group:	-
	Safety label	2.1+''fish and tree''
	Description:	UN 1950 Aerosols, flammable
14.9	Maritime transport IMDG:	
	Class/classification code	2.1
	Packing group:	-
	Safety Label	2.1+''fish and tree''
	Description:	UN 1950 Aerosols, flammable
	Ems No.:	F-D,S-U
	Marine pollutant	yes
14.10	Air Transport ICAO/IATA-DGR	
	Class/classification code	2.1
	Packing group:	-
	Description:	UN 1950 Aerosols, flammable

***SECTION 15 REGULATORY INFORMATION**

- 15.1 **Safety, health and environmental regulations/legislation specific for the substance or mixture**
Regulation (EC) No1907/2006 of the European Parliament and of the Council of 18. December 2006 on Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)
REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 On classification, labelling and packaging of substances and mixtures
The European Agreement Concerning the International carriage of dangerous goods by road (Agreement ADR)
NOTE: The stated regulatory information only indicate basic regulations described in this safety data sheet. Please note the possible existence of additional legislation complementing these regulations. Refer to all applicable national, international and local regulations and directives.
- 15.1.1 **Information according to Commission REGULATION (EC) No 552/2009 of 22 June 2009 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards Annex XVII, that must appear on the label of the product.**
Persons already sensitized to diisocyanates may develop allergic reactions when using this product. Persons suffering from 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 an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.
- 15.1.2 **Information according to Commission Regulation (EC) No. 2020/1149, which must appear on the label of a product containing diisocyanates in a concentration $\geq 0.1\%$**
As from 24 August 2023 adequate training is required before industrial or professional use.
- 15.1.3 **Other obligations when selling to the general public**
A tactile warning
Gloves (in accordance with COMMISSION REGULATION (EC) No 552/2009)
- 15.2 **Chemical safety assessment**

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No chemical safety assessment has been processed for the mixture and the substances it contains.

***SECTION 16 OTHER INFORMATION**

16.1 Full text of H phrases

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
H302	Harmful if swallowed.
H315	Causes skin irritation
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer
H361 fd	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs
H362	May cause harm to breast-fed children.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

16.2 Training instructions

Workers who come into contact with dangerous substances must be acquainted by the employer to the extent necessary with the effects of these substances, with the ways of handling them, with protective measures, with first aid principles, with necessary remediation procedures and with procedures for liquidation of faults and accidents. . The legal entity or natural person handling this chemical mixture must be trained in the safety rules and data given in the safety data sheet.

Information according to Commission Regulation (EC) No. 2020/1149, which must appear on the label of a product containing diisocyanates in a concentration $\geq 0.1\%$

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

Commission Regulation (EC) No. 2020/1149 requires workers handling diisocyanates to receive training depending on their use.

Application sector training link **Application of polyurethane products in the construction sector - Adhesives, Sealants and Foams directly applied out of small packaging at ambient temperature :**

www.diisocianati.it

16.3 Information on sources of data used in the compilation of the Safety Data Sheet

Data of the manufacturer and vendor as stated in the Safety Data Sheets of the individual components of the mixture
This Safety Data Sheet should be used in conjunction with the Material Data Sheet. The SDS does not replace the MDS.
Information herein presented is based on our knowledge of the product at the time of issue and are presented in good faith.
The user is alerted to the potential danger as resulting from the use of the product for purposes other than for which it is intended. This does not exempt the user from the understanding and implementation of all laws and regulations regulating their business. The implementation of all regulations required for handling the product is the sole responsibility of the user. These regulatory directives are intended to help the user in meeting their duties related to the handling of dangerous products.
This information is not exhaustive. This does not exempt the user from their duty to make sure there are no other laws and regulations than those referred to herein, and relating to the use and storage of the product, this remaining solely the user's responsibility.

16.4 Changes made to the previous version of the safety data sheet

From section 1 to section 16.