

SAFETY DATA SHEET
in accordance with Regulation (CE) Num. 1907/2006
(REACH)

TURBO FOAM
cod.85215001
Version: 01/ EN

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Date of print: 23/10/2019
Data of review: 24/10/2017

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

1.1 Product identifier:

TURBO FOAM cd.85215001

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

Polyurethane foam self-expanding for filling, insulating, sealing 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:

1.3.1 Company specification

Company name: SARATOGA INT. SFORZA SPA
Address: Via Edison 76
20090 Trezzano s/Naviglio (MI) ITALY
Tel./fax.: + 39 02 445731 / +39 02 4452742
www: www.saratoga.it
e-mail: trading@saratogasforza.com

1.3.2 A person qualified and responsible for safety data sheet:

e-mail: 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)

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
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
Carc. 2 H351
Aquatic Chronic 4 H413
Lact. H362

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.

Classification of the mixture is carried out in accordance with the standpoint of the Association of the European Adhesive & Sealant Industry, of FEICA, who by using ecotoxicological tests supported the classification of foams containing max. 20% of chlorinated hydrocarbons such as Aquatic Chronic 4 H413.

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.

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

May cause long lasting harmful effects to aquatic life.

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2.2
2.2.1

Label elements

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



DANGER

H222 Extremely flammable aerosol.
H229 Pressurized 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.
H351 Suspected of causing cancer.
H362 May cause harm to breast-fed children.
H373 May cause damage to organs through prolonged or repeated exposure.
H413 May cause long lasting harmful effects to aquatic life.
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 spray.
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/protective clothing/eye protection/face protection.
P302 + P352 IF ON SKIN: Wash with plenty of water and soap.
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.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P405 Store locked up.
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 oC/122oF.
P501 Dispose of contents / container in authorized collection centers.
EUH204 Contains isocyanates. May produce an allergic reaction.

In case of insufficient ventilation may form explosive mixtures

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

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).

2.3 **Other hazards**
The mixture does not meet the criteria for PBT or vPvB in accordance with Annex XIII of EU Regulation 1907/2006.

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.

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 Classification acc. (EC) No. 1272/2008 |
|---|---|-------------------|--|
| Diphenylmethanediisocyanate, isomers and homologues | - - 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 |

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| | | | |
|--|--|------|--|
| | | | Skin Sens. 1 H317 |
| alkanes, C14-17, chloro; chlorinated paraffins, C14-17 | 602-095-00-X 287-477-0 85535-85-9 01-2119519269-33-xxxx | > 22 | Lact. H362 Aquatic Acute 1 H400 M=100 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 | 1-4 | Eye Irrit. 2 H319 |
| Isobutane | 601-004-00-0 200-857-2 75-28-5 01-2119488034-38-xxxx | 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 01-2119486944-21-xxxx | 1-5 | Flam. Gas 1 H220 Press. Gas H280 |

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

SECTION 4 FIRST AID MEASURES

4.1 Description of first aid measures

4.1.1 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.

4.1.2 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.

4.1.3 In case of eye contact:

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.

4.1.4 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.

4.1.5 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

5.1.1 Suitable extinguishing media:

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

5.1.2 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, soot, various hydrocarbons and aldehydes are also created by incomplete combustion and thermolysis. 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.

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- 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.

6.3 Reference to other sections

See sections 7, 8 and 13

6.3 Methods and material for containments and cleaning up

Cover the contaminated area with moist soil and leave for at least 30 minutes to react. Remove the debris afterwards. Fresh foam can be cleaned with PU-CLEANER or organic solvents like acetone.

6.4 Reference to other sections

For further information, see Sections 7, 8 and 13

SECTION 7 HANDLING AND STORAGE

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.

7.1.1 Preventive measures to protect the environment:

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

7.1.2 Specific requirements or rules relating to the substance or mixture:

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

7.2 Conditions for safe storage, including any incompatibilities

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

7.2.1 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 mg/m ³ 1000 ppm | 2000 |

The lists valid during the making were used as basis.

Information relevant in the country of distribution to be added

8.1.2 Values DNEL and PNEC

Mixture values are not available.

8.1.2.1 Values DNEL for the mixture components

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

| Route | Consumer | | | | Účinky pro pracovníky (profesionály) | | | |
|-------------|-------------------------|------------------------|-------------------------|--------------------------|--------------------------------------|------------------------|------------------------|--------------------------|
| | 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 | | | | | | | |

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| Marine water | 0,1 mg/l |
| sporadic release | 10 mg/kg |
| Sewage Treatment Plant | 1 mg/kg |
| Terrestrial Compartment | 1 mg/kg soil |
| CAS: 85535-85-9: alkanes, C14-17, chloro | |
| DNEL | |
| | Consumer |
| | Workers |
| Route | Acute Local effects |
| | Acute Systemic effects |
| | Chronic Local effects |
| | Chronic Systemic effects |
| Oral | |
| Inhalation | |
| | 0,58 mg/kg bw/d |
| | 2 mg/m ³ |
| | |
| | 6,7 mg/m ³ |
| 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 |
| Terrestrial Compartment | 10,5 mg/kg Wet (Soil) |
| Micro-organisms (sewage treatment plant) | 80 mg/l |
| sediment (Fresh water): | 5 mg/kg |
| sediment (Marine water): | 1 mg/kg |

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 Recommended procedures for determining biological exposure tests:

Not listed

8.1.6 Exposure scenarios

Currently not handled

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

When selecting protective equipment, the employer must ensure that relevant standards are met. To avoid any doubts, a manufacturer's delivery certificate should be available. It must be ensured that correct protective equipment is available to potential users.

Regulations for personal protective equipment (Czech Rep.): CSN EN 166, CSN EN 149, CSN EN 340, ČSN EN 374-1

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

Under standard usage not necessary, however a prolonged stay in poorly ventilated areas exceeding the use of appropriate respiratory protective equipment – (from gas and combined filters) is essential.

8.2.2.3 Hand protection

Suitable materials for safety gloves; EN 374 :

Polychloroprene - CR: thickness >=0,5mm; breakthrough time >=480min

Nitrile rubber - NBR: thickness >=0,35mm; breakthrough time >=480min.

Butyl rubber - IIR: thickness >=0,5mm; breakthrough time >=480min

Fluorinated rubber - FKM: thickness >=0,4mm; breakthrough time >=480min

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

| | |
|------------------------------|---|
| Appearance: | Liquid in aerosol containers |
| Odour | According to product specifications |
| Odour Threshold | Not specified |
| Colour | Not specified |
| pH | Not applicable |
| Melting point/freezing point | Not assessed at the foam MDI: < 0 °C, ISO 3016 |
| Boiling point/boiling range | Not specified |

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| Flash point | MDI: > 200 °C, DIN 53171 |
| Evaporation rate | propellant is released, the emerging PU-foam does not evaporate |
| Flammability (solid, gas) | extremely flammable aerosol |
| Upper/lower flammability or explosive limits | 16 vol % (liquefied gas) 1,5 vol % (liquefied gas) |
| Vapour pressure | < 0,7 MPa (at20 °C) - liquefied gas; < 0,0001 hPa - MDI |
| Vapour density | unknown |
| Relative density | 1,2 g/cm ³ (at 20 °C) – without the propulsion gas 1,0 g/cm ³ (at 20 °C) – included propulsion gas |
| Solubility in water In organic solvents | insoluble, reacts with water soluble in polar organic solvents before curing |
| Partition coefficient: n-octanol/water | Not specified |
| Auto-ignition temperature | 226 °C at 1 013 hPa (dimethylether) |
| Decomposition temperature | Not specified |
| Viscosity | For the mixture not known MDI: >= 200 mPa.s at 20 °C, DIN 53019 |
| Explosive properties | Product is not explosive but it is possible to form explosive mixtures with air. |
| Oxidising properties | unknown |
| 9.2 Other information | |
| Organic solvents content (propulsion gas) | 0,2 kg/kg of product |

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**
- 10.7.1 Potentially dangerous exothermic reaction**
in contact with water, the temperature and pressure increases (inside the can)
- 10.7.2 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.
- 10.7.3 Hazardous degradation products when in contact with water**
When sprayed, reacts with water and curing into PU foam.

SECTION 11 TOXICOLOGICAL INFORMATION

- 11.1 Information on toxicological effects**
- 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 |
- 11.2 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.

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- 11.3 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.
4,4'-methylenediphenyl diisocyanate
LC50 > 1.000 mg/l Danio rerio 96 h (OECD 203)
EC50 > 1.000 mg/l Daphnia magna, 24 h. (OECD 202)
NOEC > 10 mg/l Daphnia magna 21 d (OECD 202)
ErC50 > 1.640 mg/l scenedesmus subspicatus 72 h., (OECD 201)
EC50 > 100 mg/l activated sludge, 3 h., (OECD 209)
NOEC > 1.000 mg/kg Eisenia fetida, 14 d. (OECD 207)
NOEC > 1.000 mg/kg Avena sativa, 14 d. (OECD 208)
NOEC > 1.000 mg/kg Avena sativa
expo: 14 d. (OECD 208)
NOEC > 1.000 mg/kg Lactuca sativa, 14 d. (OECD 208)
NOEC (growth rate) > 1.000 mg/kg Lactuca sativa, 14 d. (OECD 208)
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**
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 to the test results of biodegradability this product is not readily biodegradable.
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.
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**
Not available
- 12.6 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.

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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

13.1.3.1 Mixture

Uncured material: eg. 080409*

Cured material: eg.: 080410

13.1.3.2 Packaging

15 01 11*

16 05 04*

15 01 04

17 04 05

SECTION 14 TRANSPORT INFORMATION

| | | |
|--------------|--|-----------------------------|
| 14.1 | UN number | UN 1950 |
| 14.2 | UN proper shipping name | Aerosols, flammable |
| 14.3 | Transport hazard class (es) | 2 |
| 14.4 | Packing group | - |
| 14.5 | Environmental hazards | No |
| 14.6 | Special precautions for users | NOT APPLICABLE |
| 14.7 | Transport in bulk according to Annex II MARPOL and IBC Code | NOT APPLICABLE |
| 14.8 | Land transport ADR/RID | |
| | Class/classification code | 2 (5F) Gases |
| | Packing group: | - |
| | Safety label | 2.1 |
| | Description: | UN 1950 Aerosols, flammable |
| 14.9 | Maritime transport IMDG: | |
| | Class/classification code | 2.1 |
| | Packing group: | - |
| | Safety Label | 2.1 |
| | Description: | UN 1950 Aerosols, flammable |
| | Ems No.: | F-D,S-U |
| | Marine pollutant | No |
| 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 | Additional mandatory product labelling intended for sale to the public User manual A tactile warning Gloves (in accordance with COMMISSION REGULATION (EC) No 552/2009) |
| 15.1.2 | 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. <div style="border: 1px solid black; padding: 5px;"> 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. </div> |
| 15.2 | Chemical safety assessment Not carried out yet |

SECTION 16 OTHER INFORMATION

| | |
|-------------|--|
| 16.1 | Full text of H phrases used in sections 2, 3 according to Regulation EU 1272/2008 |
| H351 | Suspected of causing cancer |
| H332 | Harmful if inhaled. |
| H373 | May cause damage to organs |

SAFETY DATA SHEET
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H319 Causes serious eye irritation
H335 May cause respiratory irritation.
H315 Causes skin irritation
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H220 Extremely flammable gas.
H302 Harmful if swallowed.
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 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.

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

It replaces all previous versions