

LEAKINJECT UNI 6816
(Before LEAKINJECT A)

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

1.1 Product identifier: LEAKINJECT UNI 6816
(Before LEAKINJECT A)

Other means of identification:

Not relevant

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

Relevant uses (): Sealant for concrete

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Details of the supplier of the safety data sheet:

PROPAMSA SAU
Ctra N-340 Km 1242,3
08620 Sant Vicenç dels Horts - España
Phone: +34 93 680 60 42
constructionsolutions@molins.es
molins.es

1.4 Emergency telephone number: 0034 91 562 04 20

SECTION 2: HAZARDS IDENTIFICATION **

2.1 Classification of the substance or mixture:

CLP Regulation (EC) No 1272/2008:

Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.

Acute Tox. 4: Acute inhalation toxicity, Category 4, H332

Carc. 2: Carcinogenicity, Category 2, H351

Eye Irrit. 2: Eye irritation, Category 2, H319

Resp. Sens. 1: Sensitisation, respiratory, Category 1, H334

Skin Irrit. 2: Skin irritation, Category 2, H315

Skin Sens. 1: Sensitisation, skin, Category 1, H317

STOT RE 2: Specific target organ toxicity — Repeated exposure, Hazard Category 2, H373

STOT SE 3: Respiratory tract toxicity, single exposure, Category 3, H335

2.2 Label elements:

CLP Regulation (EC) No 1272/2008:

Danger



Hazard statements:

Acute Tox. 4: H332 - Harmful if inhaled.

Carc. 2: H351 - Suspected of causing cancer.

Eye Irrit. 2: H319 - Causes serious eye irritation.

Resp. Sens. 1: H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin Irrit. 2: H315 - Causes skin irritation.

Skin Sens. 1: H317 - May cause an allergic skin reaction.

STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure.

STOT SE 3: H335 - May cause respiratory irritation.

Precautionary statements:

*** Changes with regards to the previous version*

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SECTION 2: HAZARDS IDENTIFICATION ** (continued)

P260: Do not breathe vapours
P280: Wear protective gloves/face protection/protective clothing/respiratory protection/protective footwear.
P302+P352: IF ON SKIN: Wash with plenty of water.
P304+P341: IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position 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.
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
P501: Dispose of contents/container in accordance with regulations on hazardous waste or packaging and packaging waste respectively.

Supplementary information:

EUH208: Contains Isocyanic acid, polymethylenepolyphenylene ester, polymer with -alpha-hydro-omega hydroxypoly[oxy(methyl-1,2-ethanediyl)] and ,alpha,alpha, 'alpha '-1,2,3-propanetriyltris[omega-hydroxypoly[oxy(methyl-1,2-ethanediyl)]]]. May produce an allergic reaction.

Additional Labelling:

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

UFI: N000-40JX-H00V-U1JE

2.3 Other hazards:

Product does not meet PBT/vPvB criteria
Endocrine-disrupting properties: The product does not meet the criteria.

*** Changes with regards to the previous version*

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS **

3.1 Substance:

Not relevant

3.2 Mixture:

Chemical description: Polyurethane resin

Components:

In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

| Identification | Chemical name/Classification | Concentration |
|--|--|---------------|
| CAS: 9016-87-9 EC: 618-498-9 Index: Not relevant REACH: Not relevant | 4,4'-methylenediphenyl diisocyanate, isomers and homologues⁽¹⁾ Self-classified Regulation 1272/2008 Acute Tox. 4: H332; Carc. 2: H351; Eye Irrit. 2: H319; Resp. Sens. 1: H334; Skin Irrit. 2: H315; Skin Sens. 1: H317; STOT RE 2: H373; STOT SE 3: H335 - Danger | 25 - <50% |
| CAS: 101-68-8 EC: 202-966-0 Index: 615-005-00-9 REACH: 01-2119457014-47-XXXX | 4,4'-methylenediphenyl diisocyanate⁽¹⁾ ATP CLP00 Regulation 1272/2008 Acute Tox. 4: H332; Carc. 2: H351; Eye Irrit. 2: H319; Resp. Sens. 1: H334; Skin Irrit. 2: H315; Skin Sens. 1: H317; STOT RE 2: H373; STOT SE 3: H335 - Danger | 25 - <50% |
| CAS: 61111-77-1 EC: 855-679-3 Index: Not relevant REACH: Not relevant | Isocyanic acid, polymethylenepolyphenylene ester, polymer with -alpha-hydro-omega hydroxypoly[oxy(methyl-1,2-ethanediyl)] and ,alpha,alpha, 'alpha '-1,2,3-propanetriyltris[omega-hydroxypoly[oxy(methyl-1,2-ethanediyl)]]⁽¹⁾ Self-classified Regulation 1272/2008 Resp. Sens. 1: H334; Skin Sens. 1: H317 - Danger | 10 - <25% |
| CAS: 108-32-7 EC: 203-572-1 Index: 607-194-00-1 REACH: 01-2119537232-48-XXXX | propylene carbonate⁽¹⁾ ATP CLP00 Regulation 1272/2008 Eye Irrit. 2: H319 - Warning | 2.5 - <10% |
| CAS: 5873-54-1 EC: 227-534-9 Index: 615-005-00-9 REACH: 01-2119480143-45-XXXX | Diphenylmethane-2,4'-diisocyanate⁽¹⁾ ATP ATP01 Regulation 1272/2008 Acute Tox. 4: H332; Carc. 2: H351; Eye Irrit. 2: H319; Resp. Sens. 1: H334; Skin Irrit. 2: H315; Skin Sens. 1: H317; STOT RE 2: H373; STOT SE 3: H335 - Danger | <1% |

⁽¹⁾ Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2020/878

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

Other information:

*** Changes with regards to the previous version*

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS ** (continued)

| Identification | Specific concentration limit |
|--|---|
| 4,4'-methylenediphenyl diisocyanate, isomers and homologues CAS: 9016-87-9 EC: 618-498-9 | % (w/w) >=5: Skin Irrit. 2 - H315 % (w/w) >=5: Eye Irrit. 2 - H319 % (w/w) >=0,1: Resp. Sens. 1 - H334 % (w/w) >=5: STOT SE 3 - H335 |
| 4,4'-methylenediphenyl diisocyanate CAS: 101-68-8 EC: 202-966-0 | % (w/w) >=5: Skin Irrit. 2 - H315 % (w/w) >=5: Eye Irrit. 2 - H319 % (w/w) >=0,1: Resp. Sens. 1 - H334 % (w/w) >=5: STOT SE 3 - H335 |

Acute toxicity estimate for the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or as determined in accordance with Annex I to that Regulation:

| Identification | Acute toxicity | Genus |
|--|------------------------|--------------|
| 4,4'-methylenediphenyl diisocyanate CAS: 101-68-8 EC: 202-966-0 | LD50 oral | Not relevant |
| | LD50 dermal | Not relevant |
| | LC50 inhalation vapour | 11 mg/L * |
| 4,4'-methylenediphenyl diisocyanate, isomers and homologues CAS: 9016-87-9 EC: 618-498-9 | LD50 oral | Not relevant |
| | LD50 dermal | Not relevant |
| | LC50 inhalation vapour | 11 mg/L |

*Equivalent ATE value of the substance applicable to the exposure route of the product. For the ATE value associated with the exposure route of the substance, see section 11.

** Changes with regards to the previous version

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

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

Acute and delayed effects are indicated in sections 2 and 11.

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

Not relevant

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media:

Product is non-flammable under normal conditions of storage, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

Unsuitable extinguishing media:

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SECTION 5: FIREFIGHTING MEASURES (continued)

Non-applicable

5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and Self Contained Breathing Apparatus. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

For emergency responders:

Wear protective equipment. Keep unprotected persons away. See section 8.

6.2 Environmental precautions:

This product is not classified as hazardous to the environment. Keep product away from drains, surface and ground water.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Prevent the entrance of product in drains, sewers or watercourses. Absorb the spill using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. Collect the product in appropriate containers and manage it according to current legislation.

Spillages in water or sea:

Small spillages:

Contain spillage using barriers or similar equipment. Use suitable absorbents for collection and treat the waste in accordance with current regulations.

Large spillages:

If possible, contain spillage in open water using barriers or similar equipment. If this is not possible, try to control its spread and collect the product with suitable mechanical means. Always consult experts before using dispersants and make sure you have the necessary approvals if they are to be used. Treat the waste according to current regulations.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, handling and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

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SECTION 7: HANDLING AND STORAGE (continued)

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A.- Specific storage requirements

Minimum Temp.: 5 °C
Maximum Temp.: 25 °C
Maximum time: 12 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace (European OEL, not country-specific legislation):

There are no applicable occupational exposure limits for the substances contained in the product

DNEL (Workers):

| Identification | | Short exposure | | Long exposure | |
|--|------------|----------------|-----------------------|-------------------------|------------------------|
| | | Systemic | Local | Systemic | Local |
| 4,4'-methylenediphenyl diisocyanate, isomers and homologues CAS: 9016-87-9 EC: 618-498-9 | Oral | Not relevant | Not relevant | Not relevant | Not relevant |
| | Dermal | Not relevant | Not relevant | Not relevant | Not relevant |
| | Inhalation | Not relevant | 0,1 mg/m ³ | Not relevant | 0,05 mg/m ³ |
| 4,4'-methylenediphenyl diisocyanate CAS: 101-68-8 EC: 202-966-0 | Oral | Not relevant | Not relevant | Not relevant | Not relevant |
| | Dermal | Not relevant | Not relevant | Not relevant | Not relevant |
| | Inhalation | Not relevant | 0,1 mg/m ³ | Not relevant | 0,05 mg/m ³ |
| propylene carbonate CAS: 108-32-7 EC: 203-572-1 | Oral | Not relevant | Not relevant | Not relevant | Not relevant |
| | Dermal | Not relevant | Not relevant | 20 mg/kg | Not relevant |
| | Inhalation | Not relevant | Not relevant | 70,53 mg/m ³ | 20 mg/m ³ |
| Diphenylmethane-2,4'-diisocyanate CAS: 5873-54-1 EC: 227-534-9 | Oral | Not relevant | Not relevant | Not relevant | Not relevant |
| | Dermal | Not relevant | Not relevant | Not relevant | Not relevant |
| | Inhalation | Not relevant | 0,1 mg/m ³ | Not relevant | 0,05 mg/m ³ |

DNEL (General population):

| Identification | | Short exposure | | Long exposure | |
|--|------------|----------------|------------------------|------------------------|-------------------------|
| | | Systemic | Local | Systemic | Local |
| 4,4'-methylenediphenyl diisocyanate, isomers and homologues CAS: 9016-87-9 EC: 618-498-9 | Oral | Not relevant | Not relevant | Not relevant | Not relevant |
| | Dermal | Not relevant | Not relevant | Not relevant | Not relevant |
| | Inhalation | Not relevant | 0,05 mg/m ³ | Not relevant | 0,025 mg/m ³ |
| 4,4'-methylenediphenyl diisocyanate CAS: 101-68-8 EC: 202-966-0 | Oral | Not relevant | Not relevant | Not relevant | Not relevant |
| | Dermal | Not relevant | Not relevant | Not relevant | Not relevant |
| | Inhalation | Not relevant | 0,05 mg/m ³ | Not relevant | 0,025 mg/m ³ |
| propylene carbonate CAS: 108-32-7 EC: 203-572-1 | Oral | Not relevant | Not relevant | 10 mg/kg | Not relevant |
| | Dermal | Not relevant | Not relevant | 10 mg/kg | Not relevant |
| | Inhalation | Not relevant | Not relevant | 17,4 mg/m ³ | 10 mg/m ³ |
| Diphenylmethane-2,4'-diisocyanate CAS: 5873-54-1 EC: 227-534-9 | Oral | Not relevant | Not relevant | Not relevant | Not relevant |
| | Dermal | Not relevant | Not relevant | Not relevant | Not relevant |
| | Inhalation | Not relevant | 0,05 mg/m ³ | Not relevant | 0,025 mg/m ³ |

PNEC:

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

| Identification | | | | |
|--|--------------|--------------|-------------------------|--------------|
| 4,4'-methylenediphenyl diisocyanate, isomers and homologues CAS: 9016-87-9 EC: 618-498-9 | STP | 1 mg/L | Fresh water | 1 mg/L |
| | Soil | 1 mg/kg | Marine water | 0,1 mg/L |
| | Intermittent | 10 mg/L | Sediment (Fresh water) | Not relevant |
| | Oral | Not relevant | Sediment (Marine water) | Not relevant |
| 4,4'-methylenediphenyl diisocyanate CAS: 101-68-8 EC: 202-966-0 | STP | 1 mg/L | Fresh water | 1 mg/L |
| | Soil | 1 mg/kg | Marine water | 0,1 mg/L |
| | Intermittent | 10 mg/L | Sediment (Fresh water) | Not relevant |
| | Oral | Not relevant | Sediment (Marine water) | Not relevant |
| propylene carbonate CAS: 108-32-7 EC: 203-572-1 | STP | 7400 mg/L | Fresh water | 0,9 mg/L |
| | Soil | 0,81 mg/kg | Marine water | 0,09 mg/L |
| | Intermittent | 9 mg/L | Sediment (Fresh water) | Not relevant |
| | Oral | Not relevant | Sediment (Marine water) | Not relevant |
| Diphenylmethane-2,4'-diisocyanate CAS: 5873-54-1 EC: 227-534-9 | STP | 1 mg/L | Fresh water | 1 mg/L |
| | Soil | 1 mg/kg | Marine water | 0,1 mg/L |
| | Intermittent | 10 mg/L | Sediment (Fresh water) | Not relevant |
| | Oral | Not relevant | Sediment (Marine water) | Not relevant |

8.2 Exposure controls:

A.- Individual protection measures, such as personal protective equipment

In accordance with the order of importance to control professional exposure (Directive 98/24/EC) it is recommended to use localized extraction in the work area as a collective protection measure to avoid exceeding the occupational exposure limits. In case of using personal protective equipment it should have CE marking in accordance with Directive 2016/425/EC. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For additional information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection



| Pictogram | PPE | Labelling | CEN Standard | Remarks |
|---|-----------------------------------|--|---------------------|--|
|  Mandatory respiratory tract protection | Filter mask for gases and vapours |  CAT III | EN 405:2002+A1:2010 | Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment. |

C.- Specific protection for the hands

| Pictogram | PPE | Labelling | CEN Standard | Remarks |
|--|---|--|-------------------|--|
|  Mandatory hand protection | Chemical protective gloves (Material: Nitrile, Breakthrough time: > 480 min, Thickness: 0.4 mm) |  CAT III | EN ISO 21420:2020 | Replace the gloves at any sign of deterioration. |

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection





| Pictogram | PPE | Labelling | CEN Standard | Remarks |
|--|-------------|---|---|---|
|  Mandatory face protection | Face shield |  CAT II | EN 166:2002 UNE-EN ISO 18526-1 al 4:2020 UNE-EN ISO 18526-1 al 4:2020 EN ISO 4007:2018 | Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing. |

E.- Body protection

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

| Pictogram | PPE | Labelling | CEN Standard | Remarks |
|---|---|--|---|---|
|  Mandatory complete body protection | Disposable clothing for protection against chemical risks |  CAT III | EN 13034:2005+A1:2009 UNE-EN ISO 18526-1 al 4:2020 EN ISO 13982-1:2005/A1:2011 EN ISO 6529:2013 EN ISO 6530:2005 EN 464:1995 | For professional use only. Clean periodically according to the manufacturer's instructions. |
|  Mandatory foot protection | Safety footwear for protection against chemical risk |  CAT III | EN ISO 20345:2022 EN 13832-1:2019 | Replace boots at any sign of deterioration. |

F.- Additional emergency measures

It is advised to implement additional emergency equipments in workplaces that are particularly exposed to the product or in situations where risk assessments highlight the necessity of such equipments.

| Emergency measure | Standards | Emergency measure | Standards |
|---|---|--|--|
|  Emergency shower | ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011 |  Eyewash stations | DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011 |

Environmental exposure controls:

To comply with environmental protection regulations, it is recommended to prevent any spillage of the product and its container. For more detailed information, please refer to subsection 7.1.D.

Volatile organic compounds:

With regard to Directive 2010/75/EU, this product has the following characteristics:

| | |
|---------------------------|---------------------------------|
| V.O.C. (Supply): | 27 % weight |
| V.O.C. density at 20 °C: | 306 kg/m ³ (306 g/L) |
| Average carbon number: | 6 |
| Average molecular weight: | 146,1 g/mol |

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

| | |
|--------------------------|---|
| Physical state at 20 °C: | Liquid |
| Appearance: | Not relevant * |
| Colour: |  Brown |
| Odour: | Characteristic |
| Odour threshold: | Not relevant * |

Volatility:

| | |
|--|---------------------|
| Boiling point at atmospheric pressure: | Not relevant * |
| Vapour pressure at 20 °C: | Not relevant * |
| Vapour pressure at 50 °C: | 103,69 Pa (0,1 kPa) |
| Evaporation rate at 20 °C: | Not relevant * |

Product description:

| | |
|-------------------------------|--------------------------|
| Density at 20 °C: | Not relevant * |
| Relative density at 20 °C: | 1,15 |
| Dynamic viscosity at 20 °C: | 111 mPa·s |
| Kinematic viscosity at 20 °C: | 96522 mm ² /s |

*Not relevant due to the nature of the product, not providing information property of its hazards.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

| | |
|--|------------------------|
| Kinematic viscosity at 40 °C: | Not relevant * |
| Concentration: | Not relevant * |
| pH: | Not relevant * |
| Vapour density at 20 °C: | Not relevant * |
| Partition coefficient n-octanol/water 20 °C: | Not relevant * |
| Solubility in water at 20 °C: | Not relevant * |
| Solubility properties: | Not relevant * |
| Decomposition temperature: | Not relevant * |
| Melting point/freezing point: | Not relevant * |
| Flammability: | |
| Flash Point: | Non Flammable (>60 °C) |
| Flammability (solid, gas): | Not relevant * |
| Autoignition temperature: | Not relevant * |
| Lower flammability limit: | Not relevant * |
| Upper flammability limit: | Not relevant * |
| Particle characteristics: | |
| Median equivalent diameter: | Not relevant * |

9.2 Other information:

Information with regard to physical hazard classes:

| | |
|--|----------------|
| Explosive properties: | Not relevant * |
| Oxidising properties: | Not relevant * |
| Corrosive to metals: | Not relevant * |
| Heat of combustion: | Not relevant * |
| Aerosols-total percentage (by mass) of flammable components: | Not relevant * |

Other safety characteristics:

| | |
|---------------------------|----------------|
| Surface tension at 20 °C: | Not relevant * |
| Refraction index: | Not relevant * |

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7 from Safety Data Sheet.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

| Shock and friction | Contact with air | Increase in temperature | Sunlight | Humidity |
|--------------------|------------------|-------------------------|----------------|----------------|
| Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |

10.5 Incompatible materials:

| Acids | Water | Oxidising materials | Combustible materials | Others |
|--------------------|----------------|---------------------|-----------------------|-------------------------------|
| Avoid strong acids | Not applicable | Not applicable | Not applicable | Avoid alkalis or strong bases |

10.6 Hazardous decomposition products:

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SECTION 10: STABILITY AND REACTIVITY (continued)

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

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

The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for consumption. For more information see section 3
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):

- Acute toxicity : Exposure in high concentration can interfere with the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
- Corrosivity/Irritability: Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Causes serious eye irritation.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Exposure to this product can cause cancer. For more specific information on the possible health effects see section 2.
IARC: 4,4'-methylenediphenyl diisocyanate, isomers and homologues (3: Not classifiable as to its carcinogenicity to humans); 4,4'-methylenediphenyl diisocyanate (3: Not classifiable as to its carcinogenicity to humans)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Prolonged exposure can result in specific respiratory hypersensitivity.
- Skin: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

F- Specific target organ toxicity (STOT) - single exposure:

Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Exposure in high concentration can interfere with the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

Other information:

Not relevant

Specific toxicology information on the substances:

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

| Identification | Acute toxicity | | Genus |
|--|------------------------|-------------|--------|
| 4,4'-methylenediphenyl diisocyanate CAS: 101-68-8 EC: 202-966-0 | LD50 oral | 7616 mg/kg | Rat |
| | LD50 dermal | 10000 mg/kg | Rabbit |
| | LC50 inhalation dust | 1,5 mg/L | |
| propylene carbonate CAS: 108-32-7 EC: 203-572-1 | LD50 oral | 29000 mg/kg | Rat |
| | LD50 dermal | | |
| | LC50 inhalation vapour | | |
| 4,4'-methylenediphenyl diisocyanate, isomers and homologues CAS: 9016-87-9 EC: 618-498-9 | LD50 oral | | |
| | LD50 dermal | | |
| | LC50 inhalation vapour | 11 mg/L | |
| Diphenylmethane-2,4'-diisocyanate CAS: 5873-54-1 EC: 227-534-9 | LD50 oral | | |
| | LD50 dermal | 9400 mg/kg | Rat |
| | LC50 inhalation dust | | |

11.2 Information on other hazards:

Endocrine disrupting properties

Endocrine-disrupting properties: The product does not meet the criteria.

Other information

Not relevant

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect.
For more information see section 3.

12.1 Toxicity:

Acute toxicity:

| Identification | Concentration | | Species | Genus |
|---|---------------|-------------------|-------------------|------------|
| 4,4'-methylenediphenyl diisocyanate CAS: 101-68-8 EC: 202-966-0 | LC50 | 1000 mg/L (96 h) | Brachydanio rerio | Fish |
| | EC50 | Not relevant | | |
| | EC50 | Not relevant | | |
| propylene carbonate CAS: 108-32-7 EC: 203-572-1 | LC50 | 5300 mg/L (96 h) | Leuciscus idus | Fish |
| | EC50 | 500 mg/L (48 h) | Daphnia magna | Crustacean |
| | EC50 | Not relevant | | |
| Diphenylmethane-2,4'-diisocyanate CAS: 5873-54-1 EC: 227-534-9 | LC50 | 1000 mg/L (96 h) | Brachydanio rerio | Fish |
| | EC50 | 129,7 mg/L (24 h) | Daphnia magna | Crustacean |
| | EC50 | Not relevant | | |

Chronic toxicity:

| Identification | Concentration | | Species | Genus |
|--|---------------|--------------|---------------|------------|
| 4,4'-methylenediphenyl diisocyanate CAS: 101-68-8 EC: 202-966-0 | NOEC | Not relevant | | |
| | NOEC | 10 mg/L | Daphnia magna | Crustacean |
| Diphenylmethane-2,4'-diisocyanate CAS: 5873-54-1 EC: 227-534-9 | NOEC | Not relevant | | |
| | NOEC | 10 mg/L | Daphnia magna | Crustacean |

12.2 Persistence and degradability:

Substance-specific information:

| Identification | Degradability | | Biodegradability | |
|---|---------------|--------------|------------------|----------|
| propylene carbonate CAS: 108-32-7 EC: 203-572-1 | BOD5 | Not relevant | Concentration | 100 mg/L |
| | COD | Not relevant | Period | 28 days |
| | BOD5/COD | Not relevant | % Biodegradable | 80 % |

12.3 Bioaccumulative potential:

Substance-specific information:

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SECTION 12: ECOLOGICAL INFORMATION (continued)

| Identification | Bioaccumulation potential | |
|---|---------------------------|-------|
| 4,4'-methylenediphenyl diisocyanate CAS: 101-68-8 EC: 202-966-0 | BCF | 150 |
| | Pow Log | 4.51 |
| | Potential | High |
| propylene carbonate CAS: 108-32-7 EC: 203-572-1 | BCF | 3 |
| | Pow Log | -0.41 |
| | Potential | Low |

12.4 Mobility in soil:

| Identification | Absorption/desorption | | Volatility | |
|---|-----------------------|--------------------------|------------|--------------|
| 4,4'-methylenediphenyl diisocyanate CAS: 101-68-8 EC: 202-966-0 | Koc | Not relevant | Henry | Not relevant |
| | Conclusion | Not relevant | Dry soil | Not relevant |
| | Surface tension | 2,068E-2 N/m (283,45 °C) | Moist soil | Not relevant |

12.5 Results of PBT and vPvB assessment:

Product does not meet PBT/vPvB criteria

12.6 Endocrine disrupting properties:

Endocrine-disrupting properties: The product does not meet the criteria.

12.7 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

| Code | Description | Waste class (Regulation (EU) No 1357/2014) |
|-----------|--|--|
| 08 04 09* | waste adhesives and sealants containing organic solvents or other hazardous substances | Hazardous |

Type of waste (Regulation (EU) No 1357/2014):

HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, HP6 Acute Toxicity, HP7 Carcinogenic, HP13 Sensitising, HP4 Irritant — skin irritation and eye damage

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-hazardous residue. Waste should not be disposed of to drains. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION

This product is not regulated for transport (ADR/RID,IMDG,IATA)

SECTION 15: REGULATORY INFORMATION

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

- Article 95, REGULATION (EU) No 528/2012: Not relevant
- Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Not relevant
- Regulation (EU) 2019/1021 on persistent organic pollutants: Not relevant
- Regulation (EU) No 2024/590, about substances that deplete the ozone layer: Not relevant
- REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Not relevant
- Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Not relevant

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SECTION 15: REGULATORY INFORMATION (continued)

Not relevant

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc):

Contains more than 0.1 % of 4,4'-methylenediphenyl diisocyanate, Diphenylmethane-2,4'-diisocyanate, 4,4'-methylenediphenyl diisocyanate, isomers and homologues by weight. This product may not be distributed in its present form for first-time sale to the general public after 27th December 2010 unless the packaging contains protective gloves meeting the provisions of Regulation (EU) 2016/425.

Shall not be used in:

- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- tricks and jokes,
- games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

Contains more than 0.1 % of diisocyanates by weight. 1. Shall not be used as substances on their own, as a constituent in other substances or in mixtures for industrial and professional use(s) after 24 August 2023, unless:

(a) the concentration of diisocyanates individually and in combination is less than 0,1 % by weight, or (b) the employer or self-employed ensures that industrial or professional user(s) have successfully completed training on the safe use of diisocyanates prior to the use of the substance(s) or mixture(s).

2. Shall not be placed on the market as substances on their own, as a constituent in other substances or in mixtures for industrial and professional use(s) after 24 February 2022, unless:

(a) the concentration of diisocyanates individually and in combination is less than 0,1 % by weight, or (b) the supplier ensures that the recipient of the substance(s) or mixture(s) is provided with information on the requirements referred to in point (b) of paragraph 1 and the following statement is placed on the packaging, in a manner that is visibly distinct from the rest of the label information: "As from 24 August 2023 adequate training is required before industrial or professional use".

3. For the purpose of this entry "industrial and professional user(s)" means any worker or self-employed worker handling diisocyanates on their own, as a constituent in other substances or in mixtures for industrial and professional use(s) or supervising these tasks.

4. The training referred to in point (b) of paragraph 1 shall include the instructions for the control of dermal and inhalation exposure to diisocyanates at the workplace without prejudice to any national occupational exposure limit value or other appropriate risk management measures at national level. Such training shall be conducted by an expert on occupational safety and health with competence acquired by relevant vocational training. That training shall cover as a minimum:

(a) the training elements in point (a) of paragraph 5 for all industrial and professional use(s).

(b) the training elements in points (a) and (b) of paragraph 5 for the following uses:

- handling open mixtures at ambient temperature (including foam tunnels)
- spraying in a ventilated booth
- application by roller
- application by brush
- application by dipping and pouring
- mechanical post treatment (e.g. cutting) of not fully cured articles which are not warm anymore
- cleaning and waste
- any other uses with similar exposure through the dermal and/or inhalation route

(c) the training elements in points (a), (b) and (c) of paragraph 5 for the following uses:

- handling incompletely cured articles (e.g. freshly cured, still warm)
- foundry applications
- maintenance and repair that needs access to equipment
- open handling of warm or hot formulations (> 45 °C)
- spraying in open air, with limited or only natural ventilation (includes large industry working halls) and spraying with high energy (e.g. foams, elastomers)
- and any other uses with similar exposure through the dermal and/or inhalation route.

5. Training elements:

(a) general training, including on-line training, on:

- chemistry of diisocyanates
- toxicity hazards (including acute toxicity)
- exposure to diisocyanates
- occupational exposure limit values
- how sensitisation can develop
- odour as indication of hazard
- importance of volatility for risk
- viscosity, temperature, and molecular weight of diisocyanates
- personal hygiene
- personal protective equipment needed, including practical instructions for its correct use and its limitations
- risk of dermal contact and inhalation exposure
- risk in relation to application process used
- skin and inhalation protection scheme
- ventilation

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SECTION 15: REGULATORY INFORMATION (continued)

- cleaning, leakages, maintenance
- discarding empty packaging
- protection of bystanders
- identification of critical handling stages
- specific national code systems (if applicable)
- behaviour-based safety
- certification or documented proof that training has been successfully completed
- (b) intermediate level training, including on-line training, on:
 - additional behaviour-based aspects
 - maintenance
 - management of change
 - evaluation of existing safety instructions
 - risk in relation to application process used
 - certification or documented proof that training has been successfully completed
- (c) advanced training, including on-line training, on:
 - any additional certification needed for the specific uses covered
 - spraying outside a spraying booth
 - open handling of hot or warm formulations (> 45 °C)
 - certification or documented proof that training has been successfully completed
- 6. The training shall comply with the provisions set by the Member State in which the industrial or professional user(s) operate. Member States may implement or continue to apply their own national requirements for the use of the substance(s) or mixture(s), as long as the minimum requirements set out in paragraphs 4 and 5 are met.
- 7. The supplier referred to in point (b) of paragraph 2 shall ensure that the recipient is provided with training material and courses pursuant to paragraphs 4 and 5 in the official language(s) of the Member State(s) where the substance(s) or mixture(s) are supplied. The training shall take into consideration the specificity of the products supplied, including composition, packaging, and design.
- 8. The employer or self-employed shall document the successful completion of the training referred to in paragraphs 4 and 5. The training shall be renewed at least every five years.
- 9. Member States shall include in their reports pursuant to Article 117(1) the following information:
 - (a) any established training requirements and other risk management measures related to the industrial and professional uses of diisocyanates foreseen in national law
 - (b) the number of cases of reported and recognised occupational asthma and occupational respiratory and dermal diseases in relation to diisocyanates
 - (c) national exposure limits for diisocyanates, if there are any
 - (d) information about enforcement activities related to this restriction.
- 10. This restriction shall apply without prejudice to other Union legislation on the protection of safety and health of workers at the workplace.

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation:

The product could be affected by sectorial legislation

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

The SDS shall be supplied in an official language of the country where the product is placed on the market. This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (COMMISSION REGULATION (EU) 2020/878).

Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

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SECTION 16: OTHER INFORMATION (continued)

COMMISSION REGULATION (EU) 2020/878

COMPOSITION/INFORMATION ON INGREDIENTS (SECTION 3):

· New declared substances

Isocyanic acid, polymethylenepolyphenylene ester, polymer with -alpha-hydro-omega hydroxypoly[oxy(methyl-1,2-ethanediyl)] and ,alpha,alpha',alpha'-1,2,3-propanetriyltris[omega-hydroxypoly[oxy(methyl-1,2-ethanediyl)]] (61111-77-1)

· Removed substances

Isocyanic acid, polymethylenepolyphenylene ester, polymer with alpha-hydro-omega-hydroxypoly(oxy(methyl-1,2-ethanediyl)) and alpha,alpha',alpha'-1,2,3-propanetriyltris(omega-hydroxypoly(oxy(methyl-1,2-ethanediyl))) (61111-77-1)

CLP Regulation (EC) No 1272/2008 (SECTION 2, SECTION 16):

· Supplementary information

Texts of the legislative phrases mentioned in section 2:

H332: Harmful if inhaled.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

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

H317: May cause an allergic skin reaction.

H351: Suspected of causing cancer.

H335: May cause respiratory irritation.

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

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

CLP Regulation (EC) No 1272/2008:

Acute Tox. 4: H332 - Harmful if inhaled.

Carc. 2: H351 - Suspected of causing cancer.

Eye Irrit. 2: H319 - Causes serious eye irritation.

Resp. Sens. 1: H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin Irrit. 2: H315 - Causes skin irritation.

Skin Sens. 1: H317 - May cause an allergic skin reaction.

STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure (Inhalation).

STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure.

STOT SE 3: H335 - May cause respiratory irritation.

Advice related to training:

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

<http://echa.europa.eu>

<http://eur-lex.europa.eu>

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

LC50: Lethal Concentration 50

EC50: Effective concentration 50

LogPOW: Octanolwater partition coefficient

Koc: Partition coefficient of organic carbon

UFI: unique formula identifier

IARC: International Agency for Research on Cancer

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -