

interfloor

SAFETY DATA SHEET

Gripperrods Rapidbond Adhesive



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Section 1: Identification

Product Name: TX6616

Chemical Name/Synonyms: ISOLEMFI 50131C

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Section 2: Hazard(s) Identification

2.1 Classification of the substance or mixture

Classification (EC1272/2008)

Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315

Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318

Respiratory Sensitization, Category 1 - Resp. Sens. 1; H334

Skin Sensitization, Category 1 - Skin Sens. 1; H317

Carcinogenicity, Category 2 - Carc. 2; H351

Reproductive Toxicity, Category 1B - Repr. 1B; H360

Specific Target Organ Toxicity-Repeated Exposure, Category 2 - STOT RE 2; H373

Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H335

For full text of H phrases, see Section 16.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

CLP REGULATION (EC) No 1272/2008

SIGNAL WORD

DANGER.

Symbols

GHS05 (Corrosion) | GHS07 (Exclamation mark) | GHS08 (Health Hazard) |

Pictograms



Ingredients:

Substance	Cas No	EC No	% by wt
Polymethylene polypropylene isocyanate	9016-87-9		10-30
N-Ethyl-2-Pyrrolidone	2687-91-4	220-250-6	<3
Calcium Oxide	1305-78-8	215-138-9	<2

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Hazard statements

- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H317 May cause an allergic skin reaction.
- H351 Suspected of causing cancer.
- H360D May damage the unborn child.
- H335 May cause respiratory irritation.
- H373 May cause damage to organs through prolonged or repeated exposure: respiratory system.

PRECAUTIONARY STATEMENTS

Prevention:

- P201 Obtain special instructions before use.
- P261G Avoid breathing vapours or dust.
- P280B Wear protective gloves and eye/face protection.

Response:

- 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.
- P310 Immediately call a POISON CENTRE or doctor/physician.
- P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician.

SUPPLEMENTAL INFORMATION:

Supplemental Precautionary Statements:

- Restricted to professional users.
- 3% of the mixture consists of components of unknown acute inhalation toxicity.
- Contains 2% of components with unknown hazards to the aquatic environment..

Information required per Regulation (EU) 2020/1149 as regards diisocyanates:

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

2.3 Other hazards

Not known.

Section 3: Composition/ Information on Ingredients

Mixtures

Ingredient	Identifiers	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Limestone	(CAS-No.) 1317- 65-3 (EC-No.) 215-279-6	10-30	Substance with a national occupational exposure limit
Polymethylene polypropylene isocyanate	(CAS-No.) 9016- 87-9	10-30	Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373

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Ingredient	Identifiers	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Calcium Carbonate	(CAS-No.) 471-34-1 (EC-No.) 207-439-9 (REACH-No.) 01-2119486795-18	10-30	Substance with a national occupational exposure limit
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	(EC-No.) 926-141- 6 (REACH-No.) 01-2119456620-43	1-5	Asp. Tox. 1, H304 EUH066
2,2'-Dimorpholinyl-diethyl ether	(CAS-No.) 6425- 39-4 (EC-No.) 229-194- 7 (REACH-No.) 01-2119969278-20	1-5	Eye Irrit. 2, H319
N-ethyl-2-pyrrolidone	(CAS-No.) 2687- 91-4 (EC-No.) 220-250- 6 (REACH-No.) 01-2119472138-36	<3	Repr. 1B, H360D Eye Dam. 1, H318
Calcium Oxide	(CAS-No.) 1305- 78-8 (EC-No.) 215-138- 9 (REACH-No.) 01-2119475325-36	<2	EUH071 Skin Corr. 1C, H314 Eye Dam. 1, H318

Ingredient	Identifiers	Specific concentration limits
Calcium Oxide	(CAS-No.) 1305- 78-8 (EC-No.) 215-138- 9 (REACH-No.) 01-2119475325-36	(C >= 50%) EUH071 (C >= 50%) Skin Corr. 1C, H314 (10% =< C < 50%) Skin Irrit. 2, H315 (C >= 3%) Eye Dam. 1, H318 (1% =< C < 3%) Eye Irrit. 2, H319 (20% =< C < 50%) STOT SE 3, H335
Polymethylene polypropylene isocyanate	(CAS-No.) 9016- 87-9	(C >= 5%) Skin Irrit. 2, H315 (C >= 5%) Eye Irrit. 2, H319 (C >= 0.1%) Resp. Sens. 1, H334 (C >= 5%) STOT SE 3, H335

Section 4: First-Aid Measures

4.1 Description of first aid measures

Note Personal protective equipment for first aid responders is recommended.

Inhalation: Move to fresh air. Get medical attention if symptoms persist.

Skin Contact: Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop

Eye Contact: Rinse eye immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention if symptoms persist.

Ingestion: Rinse mouth thoroughly with plenty of water. Drink plenty of water. Do not induce vomiting. Get medical attention if symptoms persist.

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4.2 Most important symptoms and effects, both acute and delayed

The most important symptoms and effects based on the CLP classification include:

Irritating to the respiratory tract (coughing, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain). Allergic respiratory reaction (difficulty breathing, wheezing, cough, and tightness of chest). Irritation to the skin (localized redness, swelling, itching, and dryness). Allergic skin reaction (redness, swelling, blistering, and itching). Serious damage to the eyes (corneal cloudiness, severe pain, tearing, ulcerations, and significantly impaired or loss of vision). Target organ effects. See Section 11 for additional details..

4.3 Indication of any immediate medical attention and special treatment needed

Treatment: Treat symptomatically

Section 5: Fire-Fighting Measures

5.1 Extinguishing media

This product is not flammable. Use fire-extinguishing media appropriate for surrounding materials.

5.2 Special hazards arising from the substance or media

No further relevant information known.

Hazardous Decomposition or By-Products

Substance	Condition
Isocyanates	During combustion.
Carbon monoxide	During combustion.
Hydrogen Chloride	During combustion.
Hydrogen cyanide.	During combustion.
Oxides of nitrogen.	During combustion.

5.3 Advice for firefighters

Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2 Environment precautions

Do not dispose into drains, water courses or onto the ground.

6.3 Methods and material for containment and cleaning up

our isocyanate decontaminant solution (90% water, 8% concentrated ammonia, 2% detergent) on spill and allow to react for 10 minutes. Or pour water on spill and allow to react for more than 30 minutes. Cover with absorbent material. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Place in a container approved for transportation by appropriate authorities, but do not seal the container for 48 hours to avoid pressure build-up. Clean up residue. Seal the container. Dispose of collected material as soon as possible.

6.4 Reference to other sections

Wear protective clothing as described in section 8 of this safety data sheet. For waste disposal, see section 13.

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Section 7: Handling and Storage

7.1 Precautions for safe handling

Avoid breathing of dust created by cutting, sanding, grinding or machining. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (eg. gloves, respirators...) as required.

7.2 Conditions for safe storage, including incompatibilities

Store in a well-ventilated place. Keep container tightly closed to prevent contamination with water or air. If contamination is suspected, do not reseal container. Store away from acids. Store away from oxidising agents. Store away from amines.

7.3 Specific end use(s)

See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

Section 8: Exposure Controls/Personal Protection

8.1 Control parameters

Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	Cas No	Agency	Limit type and value	Comments
Calcium Oxide	1305-78-8	UK HSC	TWA(respirable fraction):1 mg/m ³ ; TWA:2 mg/m ³ ;STEL(respirable fraction):4 mg/m ³	
Limestone	1317-65-3	UK HSC	TWA(respirable):4 mg/m ³ ; TWA(as respirable dust):4mg/m ³ ; TWA(Inhalable):10mg/m ³ ; TWA(as inhalable dust):10 mg/m ³	
Limestone	471-34-1	UK HSC	TWA(respirable):4 mg/m ³ ; TWA(as respirable dust):4mg/m ³ ; TWA(Inhalable):10mg/m ³ ; TWA(as inhalable dust):10 mg/m ³	
Free Isocyanates	9016-87-9	UK HSC	TWA(as NCO):0.02 mg/m ³ ; STEL(as NCO):0.07 mg/m ³	Respiratory Sensitizer

UK HSC : UK Health and Safety Commission

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

Biological limit values

Ingredient	Cas No	Agency	Determinant	Biological Specimen	Sampling Time	Value
Free Isocyanates	9016-87-9	UK EH40 BMGVs	Isocyanate derived diamine	Creatinine in urine	EPE	1 umol/mol

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UK EH40 BMGVs : UK. EH40 Biological Monitoring Guidance Values (BMGVs) EPE: At the end of the period of exposure.

Recommended monitoring procedures: Information on recommended monitoring procedures can be obtained from UK HSC

8.2. Exposure controls

8.2.1. Engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE) Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Full face shield. Indirect vented goggles.

Applicable Norms/Standards

Use eye/face protection conforming to EN 166

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.

Gloves made from the following material(s) are recommended:

Material	Thickness (mm) No	Breakthrough Time
Polymer laminate	data available	No data available

Applicable Norms/Standards

Use gloves tested to EN 374

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for organic vapours and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

Applicable Norms/Standards

Use a respirator conforming to EN 140 or EN 136: filter types A & P

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Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical state	Solid
Specific Physical Form:	Paste
Colour	Beige
Odor	Odourless
Odour threshold	Not applicable
Melting point/freezing point	Not applicable.
Boiling point/boiling range	No data available.
Flammability (solid, gas)	Not classified
Flammable Limits(LEL)	No data available.
Flammable Limits(UEL)	No data available.
Flash point	>=70 °C [Test Method:Closed Cup]
Autoignition temperature	No data available.
Decomposition temperature	No data available.
pH	substance/mixture is non-soluble (in water)
Kinematic Viscosity	285,714.2857 mm ² /sec
Water solubility	Immiscible
Solubility- non-water	No data available.
Partition coefficient: n-octanol/water	No data available.
Vapour pressure	Not applicable.
Density	No data available.
Relative density	1.4
Relative Vapor Density	Not applicable
Physical state	Not applicable

9.2 Other information

Not applicable.

Section 10 Stability and reactivity

10.1 Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

10.2 Chemical stability

Not determined (RMs only)

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

Avoid temperatures above 50°C

10.5 Incompatible materials

Water
Alcohols
Amines

10.6 Hazardous decomposition products

No dangerous decomposition products known.

Refer to section 5.2 for hazardous decomposition products during combustion.

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Section 11: Toxicological Information

11.1 Information on toxicological effects

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from internal hazard assessments.

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

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation

Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Allergic respiratory reaction: Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest. May cause additional health effects (see below).

Skin contact

Skin Irritation: Signs/symptoms may include localised redness, swelling, itching, dryness, cracking, blistering, and pain. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye contact

Corrosive (eye burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

Ingestion

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. May cause additional health effects (see below).

Additional Health Effects:

Prolonged or repeated exposure may cause target organ effects:

Respiratory effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish coloured skin (cyanosis), sputum production, changes in lung function tests, and respiratory failure.

Reproductive/Developmental Toxicity:

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

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Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Inhalation-Vapour(4 hr)		No data available; calculated ATE >50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Polymethylene polyphenylene isocyanate	Dermal	Rabbit	LD50 > 5,000 mg/kg
Polymethylene polyphenylene isocyanate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.368 mg/l
Polymethylene polyphenylene isocyanate	Ingestion	Rat	LD50 31,600 mg/kg
Limestone	Dermal	Rat	LD50 > 2,000 mg/kg
Limestone	Inhalation-Dust/Mist (4 hours)	Rat	LC50 3 mg/l
Limestone	Ingestion	Rat	LD50 6,450 mg/kg
Calcium carbonate	Dermal	Rat	LD50 > 2,000 mg/kg
Calcium carbonate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 3 mg/l
Calcium carbonate	Ingestion	Rat	LD50 6,450 mg/kg
N-ethyl-2-pyrrolidone	Dermal	Rat	LD50 > 2,000 mg/kg
N-ethyl-2-pyrrolidone	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5.1 mg/l
N-ethyl-2-pyrrolidone	Ingestion	Rat	LD50 3,200 mg/kg
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	Inhalation-Vapour	Professional judgement	LC50 estimated to be 20 - 50 mg/l
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	Dermal	Rabbit	LD50 > 5,000 mg/kg
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	Ingestion	Rat	LD50 > 5,000 mg/kg
2,2'-Dimorpholinyl-diethyl ether	Dermal	Rabbit	LD50 3,030 mg/kg
2,2'-Dimorpholinyl-diethyl ether	Ingestion	Rat	LD50 2,020 mg/kg
Calcium oxide	Ingestion	Rat	LD50 > 2,500 mg/kg
Calcium oxide	Dermal	similar compounds	LD50 > 2,500 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Polymethylene polyphenylene isocyanate	official classification	Irritant
Limestone	Rabbit	No significant irritation
Calcium carbonate	Rabbit	No significant irritation
N-ethyl-2-pyrrolidone	Rabbit	Minimal irritation
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	Rabbit	Minimal irritation
2,2'-Dimorpholinyl-diethyl ether	Rabbit	Mild irritant

Calcium oxide	Human	Corrosive
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Serious Eye Damage/Irritation

Name	Species	Value
Polymethylene polyphenylene isocyanate	official classification	Severe irritant
Limestone	Rabbit	No significant irritation
Calcium carbonate	Rabbit	No significant irritation
N-ethyl-2-pyrrolidone	Rabbit	Corrosive
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	Rabbit	Mild irritant
2,2'-Dimorpholinyl-diethyl ether	Rabbit	Severe irritant
Calcium oxide	Rabbit	Corrosive

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Skin Sensitisation

Name	Species	Value
Polymethylene polyphenylene isocyanate	official classification	Sensitising
N-ethyl-2-pyrrolidone	Mouse	Not classified
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	Guinea pig	Not classified
2,2'-Dimorpholinyl-diethyl ether	Guinea pig	Not classified

Respiratory Sensitisation

Name	Species	Value
Polymethylene polyphenylene isocyanate	Human	Sensitising

Germ Cell Mutagenicity

Name	Route	Value
Polymethylene polyphenylene isocyanate	In Vitro	Some positive data exist, but the data are not sufficient for classification
N-ethyl-2-pyrrolidone	In Vitro	Not mutagenic
N-ethyl-2-pyrrolidone	In vivo	Not mutagenic
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	In Vitro	Not mutagenic
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	In vivo	Not mutagenic
2,2'-Dimorpholinyl-diethyl ether	In Vitro	Not mutagenic
2,2'-Dimorpholinyl-diethyl ether	In vivo	Not mutagenic
Calcium oxide	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Polymethylene polyphenylene isocyanate	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	Not specified.	Not available	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Polymethylene polyphenylene isocyanate	Inhalation	Not classified for development	Rat	NOAEL 0.004 mg/l	during organogenesis
Limestone	Ingestion	Not classified for development	Rat	NOAEL 625 mg/kg/day	prematuring & during gestation
Calcium carbonate	Ingestion	Not classified for development	Rat	NOAEL 625 mg/kg/day	prematuring & during gestation
N-ethyl-2-pyrrolidone	Inhalation	Not classified for female reproduction	Rat	NOAEL 0.2 mg/l	13 weeks
N-ethyl-2-pyrrolidone	Ingestion	Not classified for male reproduction	Rat	NOAEL 300 mg/kg/day	3 months
N-ethyl-2-pyrrolidone	Dermal	Not classified for development	Rat	NOAEL 400 mg/kg/day	during gestation
N-ethyl-2-pyrrolidone	Ingestion	Toxic to development	Rabbit	NOAEL 60 mg/kg/day	during gestation
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	Not specified.	Not classified for female reproduction	Rat	NOAEL Not available	1 generation
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	Not specified.	Not classified for male reproduction	Rat	NOAEL Not available	1 generation
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	Not specified.	Not classified for development	Rat	NOAEL Not available	1 generation
2,2'-Dimorpholinyl-diethyl ether	Ingestion	Not classified for female reproduction	Rat	NOAEL 300 mg/kg/day	prematuring into lactation

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2,2'-Dimorpholinyl-diethyl ether	Ingestion	Not classified for male reproduction	Rat	NOAEL 300 mg/kg/day	28 days
2,2'-Dimorpholinyl-diethyl ether	Ingestion	Not classified for development	Rat	NOAEL 300 mg/kg/day	prematuring into lactation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Polymethylene polyphenylene isocyanate	Inhalation	respiratory irritation	May cause respiratory irritation	official classification	NOAEL Not available	
Limestone	Inhalation	respiratory system	Not classified	Rat	NOAEL 0.812 mg/l	90 minutes
Calcium carbonate	Inhalation	respiratory system	Not classified	Rat	NOAEL 0.812 mg/l	90 minutes
N-ethyl-2-pyrrolidone	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
2,2'-Dimorpholinyl-diethyl ether	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
Calcium oxide	Inhalation	respiratory irritation	May cause respiratory irritation	Not available	NOAEL Not available	occupational exposure

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Polymethylene polyphenylene isocyanate	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.004 mg/l	13 weeks
Limestone	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
Calcium carbonate	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
N-ethyl-2-pyrrolidone	Inhalation	liver	Not classified	Rat	NOAEL 0.2 mg/l	13 weeks
N-ethyl-2-pyrrolidone	Inhalation	respiratory system	Not classified	Rat	NOAEL 0.06 mg/l	13 weeks
N-ethyl-2-pyrrolidone	Inhalation	heart skin endocrine system gastrointestinal tract bone, teeth, nails, and/or hair hematopoietic system immune	Not classified	Rat	NOAEL 0.2 mg/l	13 weeks

		system muscles nervous system eyes kidney and/or bladder vascular system				
N-ethyl-2-pyrrolidone	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 100 mg/kg/day	3 months
N-ethyl-2-pyrrolidone	Ingestion	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	3 months
N-ethyl-2-pyrrolidone	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 100 mg/kg/day	3 months
2,2'-Dimorpholinyl-diethyl ether	Ingestion	heart endocrine system hematopoietic system liver immune system nervous system kidney and/or bladder respiratory system	Not classified	Rat	NOAEL 300 mg/kg/day	28 days

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Aspiration Hazard

Name	Value
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	Aspiration hazard

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

11.2. Information on other hazards

This material does not contain any substances that are assessed to be an endocrine disruptor for human health.

Section 12: Ecological Information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

12.1. Toxicity

No product test data available.

Material	CAS #	Organism	Type	Exposure	Test endpoint	Test result
Calcium carbonate	471-34-1	Green algae	Experimental	72 hours	EC50	>100 mg/l
Calcium carbonate	471-34-1	Rainbow trout	Experimental	96 hours	LC50	>100 mg/l
Calcium carbonate	471-34-1	Water flea	Experimental	48 hours	EC50	>100 mg/l
Calcium carbonate	471-34-1	Green algae	Experimental	72 hours	EC10	100 mg/l
Limestone	1317-65-3	Green algae	Estimated	72 hours	EC50	>100 mg/l
Limestone	1317-65-3	Rainbow trout	Estimated	96 hours	LC50	>100 mg/l
Limestone	1317-65-3	Water flea	Estimated	48 hours	EC50	>100 mg/l
Limestone	1317-65-3	Green algae	Estimated	72 hours	EC10	>100 mg/l

Polymethylene polyphenylene isocyanate	9016-87-9	Green algae	Analogous Compound	72 hours	No tox obs at lmt of water sol	>100 mg/l
Polymethylene polyphenylene isocyanate	9016-87-9	Water flea	Analogous Compound	24 hours	No tox obs at lmt of water sol	>100 mg/l
Polymethylene polyphenylene isocyanate	9016-87-9	Green algae	Analogous Compound	72 hours	No tox obs at lmt of water sol	>100 mg/l
Polymethylene polyphenylene isocyanate	9016-87-9	Activated sludge	Analogous Compound	3 hours	EC50	>100 mg/l
2,2'-Dimorpholinyl diethyl ether	6425-39-4	Green algae	Experimental	72 hours	EC50	>100 mg/l
2,2'-Dimorpholinyl diethyl ether	6425-39-4	Water flea	Experimental	48 hours	LC50	>100 mg/l
2,2'-Dimorpholinyl diethyl ether	6425-39-4	Zebra Fish	Experimental	96 hours	LC50	>2,150 mg/l
2,2'-Dimorpholinyl diethyl ether	6425-39-4	Green algae	Experimental	72 hours	NOEC	100 mg/l

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Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	926-141-6	Green Algae	Experimental	72 hours	EL50	>1,000 mg/l
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	926-141-6	Rainbow trout	Experimental	96 hours	LL50	>1,000 mg/l
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	926-141-6	Water flea	Experimental	48 hours	EL50	>1,000 mg/l
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	926-141-6	Green Algae	Experimental	72 hours	NOEL	1,000 mg/l
N-ethyl-2-pyrrolidone	2687-91-4	Activated sludge	Experimental	30 minutes	EC20	>1,000 mg/l
N-ethyl-2-pyrrolidone	2687-91-4	Green algae	Experimental	72 hours	EC50	>101 mg/l
N-ethyl-2-pyrrolidone	2687-91-4	Water flea	Experimental	48 hours	EC50	>104 mg/l
N-ethyl-2-pyrrolidone	2687-91-4	Zebra Fish	Experimental	96 hours	LC50	>464 mg/l
N-ethyl-2-pyrrolidone	2687-91-4	Water flea	Estimated	21 days	NOEC	12.5 mg/l
N-ethyl-2-pyrrolidone	2687-91-4	Green algae	Experimental	72 hours	NOEC	101 mg/l
Calcium oxide	1305-78-8	Common Carp	Experimental	96 hours	LC50	1,070 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Calcium carbonate	471-34-1	Data not availbl-insufficient			N/A	
Limestone	1317-65-3	Data not availbl-insufficient			N/A	
Polymethylene polyphenylene isocyanate	9016-87-9	Analogous Compound Hydrolysis		Hydrolytic half-life	20 hours (t 1/2)	
Polymethylene polyphenylene isocyanate	9016-87-9	Analogous Compound Aquatic Inherent Biodegrad.	28 days	BOD	0 % BOD/ThBOD	OECD 302C - Modified MITI (II)
2,2'-Dimorpholinyl diethyl ether	6425-39-4	Experimental Biodegradation	28 days	BOD	1 % weight	OECD 301C - MITI test (I)
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	926-141-6	Experimental Biodegradation	28 days	BOD	69 % BOD/ThBOD	OECD 301F - Manometric respirometry
N-ethyl-2-pyrrolidone	2687-91-4	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	90-100 % weight	OECD 301A - DOC Die Away Test
Calcium oxide	1305-78-8	Data not availbl-insufficient			N/A	

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12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
Calcium carbonate	471-34-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Limestone	1317-65-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Polymethylene polyphenylene isocyanate	9016-87-9	Analogous Compound BCF-Carp	28 days	Bioaccumulation factor	200	OECD305-Bioconcentration
Polymethylene polyphenylene isocyanate	9016-87-9	Analogous Compound Bioconcentration		Log Kow	4.51	
2,2'-Dimorpholinyl diethyl ether	6425-39-4	Experimental BCF-Carp	56 days	Bioaccumulation factor	<=3.1	OECD 305E - Bioaccumulation flow-through fish test
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	926-141-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
N-ethyl-2-pyrrolidone	2687-91-4	Experimental Bioconcentration		Log Kow	-0.2	Non-standard method
Calcium oxide	1305-78-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

12.4. Mobility in soil

No test data available.

12.5. Results of the PBT and vPvB assessment

This material does not contain any substances that are assessed to be a PBT or vPvB

12.6. Endocrine disrupting properties

This material does not contain any substances that are assessed to be an endocrine disruptor for environmental effects

12.7. Other adverse effects

No information available.

Section 13: Disposal Considerations

13.1 Waste treatment methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations. Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of the manufacturer, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC -2000/532/CE and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor

EU waste code (product as sold)

08 04 09* Waste adhesives and sealants containing organic solvents or other dangerous substances

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Section 14: Transport Information

This product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1 UN number

14.2 UN proper shipping name

14.3 Transport hazard class(es)

ADR/RID class Not classified for transportation.

Transport Labels No transport warning sign require.

14.4 Packing group N/A

14.5 Environmental hazards N/A

14.6 Special precautions for user none

14.7 Transport in bulk N/A

Section 15: Regulatory Information

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

Carcinogenicity

<u>Ingredient</u>	<u>CAS Nbr</u>	<u>Classification</u>	<u>Regulation</u>
Polymethylene polyphenylene isocyanate	9016-87-9	Carc. 2	3M classified according to Regulation (EC) No 1272/2008
Polymethylene polyphenylene isocyanate	9016-87-9	Gr. 3: Not classifiable	International Agency for Research on Cancer

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

Section 16: Other Information

List of relevant H statements

EUH066	Repeated exposure may cause skin dryness or cracking.
EUH071	Corrosive to the respiratory tract.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
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.
H360D	May damage the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure: respiratory system.

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Whilst the company has taken every care in the preparation of these particulars, no liability is attached for any loss or damage arising from reliance upon information which has been prepared specifically for the purposes of the Control of Substance Hazardous to Health Regulations 2002. The details of composition of products are given entirely for the purposes of the Regulations and, as the composition may vary from time to time, are not given as warranty of specification of products of their use.

Data is given for guidance only and does not form part of any specification.

This material should be stored, handled and used in accordance with good industrial hygiene practices and in conformity with any legal regulations.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process.

It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use.

SDS date of preparation/update: 08/02/2023