watco® SAFETY DATA SHEET

Concrex Sub Zero - Curing Agent

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

1.1 Product identifier

Product name : Concrex Sub Zero - Curing Agent

Product description : Paint

Product type : Liquid.

UFI : U3U0-R0GE-400N-GDD5

Product code : WAT0084

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

Identified uses
Industrial Professional

Uses advised against	Reason
Consumer	Contains isocyanates.

1.3 Details of the supplier of the safety data sheet

Watco UK Limited
Eastgate Court
195-205 High Street
Guildford
Surrey
GU1 3EH
United Kingdom
Watco UK:
T: +44 (0) 1483 425000 (08:00 - 18:00)
F: +44 (0) 1483 428888

Watco FR
COLOFT - Espace de coworking
Arteparc
9 rue des Bouleaux
59810 Lesquin, France
Watco FR:
T: +33 (0) 3 20 52 77 77
F: +33 (0) 3 20 52 38 39
info@watco.fr
Watco BE:
T: +32 13 458 905

Watco GmbH DE
Kränkelsweg 14
41748 Viersen
Germany
Watco DE:
T: +49 (0) 21 62 530 17 17(08:00 - 17:00)
F: +49 (0) 21 62 530 17 77
info@watco.de
Watco AT:
T: +43 1 310 09 10

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

e-mail address of person responsible for this SDS : rpmeurohas@rustoleum.eu

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number Ireland : 01 809 2166
Available 8am to 10pm 7 days per week

Supplier

Telephone number Ireland : +353 19014670

Hours of operation : 24 / 7

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Acute Tox. 4, H332
Skin Sens. 1, H317
STOT SE 3, H335

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :

Signal word : Warning

Hazard statements : H317 - May cause an allergic skin reaction.
H332 - Harmful if inhaled.
H335 - May cause respiratory irritation.

Precautionary statements

General : P103 - Read carefully and follow all instructions.
P102 - Keep out of reach of children.
P101 - If medical advice is needed, have product container or label at hand.

Prevention : P280 - Wear protective gloves.
P284 - In case of inadequate ventilation wear respiratory protection.
P271 - Use only outdoors or in a well-ventilated area.

Response : P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Storage : Not applicable.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients : polyhexamethylene diisocyanate
hexamethylene-di-isocyanate

Supplemental label elements : EUH204 - Contains isocyanates. May produce an allergic reaction.

SECTION 2: Hazards identification

Supplemental label elements : Detergents - Regulation (EC) No 907/2006 : Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Yes, applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

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

Product meets the criteria for endocrine disrupting properties according to Regulation (EC) No. 1907/2006. : Not applicable

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Ireland

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
polyhexamethylene diisocyanate	REACH #: 01-2119485796-17 EC: 500-060-2 CAS: 28182-81-2	≥90	Acute Tox. 4, H332 Skin Sens. 1, H317 STOT SE 3, H335	ATE [Inhalation (dusts and mists)] = 1,5 mg/l	[1] [2]
hexamethylene-di-isocyanate	REACH #: 01-2119457571-37 EC: 212-485-8 CAS: 822-06-0 Index: 615-011-00-1	≤0,1	Acute Tox. 4, H302 Acute Tox. 1, H330 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335 **See Section 16 for the full text of the H statements declared above.**	ATE [Oral] = 500 mg/kg ATE [Inhalation (vapours)] = 0,05 mg/l Resp. Sens. 1, H334: C ≥ 0,5% Skin Sens. 1, H317: C ≥ 0,5%	[1] [2]

SECTION 3: Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Type

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

SECTION 4: First aid measures

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous combustion products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Additional information : No unusual hazard if involved in a fire.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

SECTION 6: Accidental release measures

Large spill : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance.

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits / Biological exposure indices

Ireland

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Exposure limit values
polyhexamethylene diisocyanate	**NAOSH (Ireland, 4/2024) [isocyanates]** Sensitiser. Notes: Advisory Occupational Exposure Limit Values (OELVs) OELV 8 hours: 0,02 mg/m³ (as NCO). OELV 15 minutes: 0,07 mg/m³ (as NCO).
hexamethylene-di-isocyanate	**NAOSH (Ireland, 4/2024)** Sensitiser. Notes: Advisory Occupational Exposure Limit Values (OELVs) OELV 8 hours: 0,005 ppm (as NCO).

Product/ingredient name	Exposure indices
polyhexamethylene diisocyanate	**NAOSH BGVs (Ireland, 1/2011) [Isocyanates]** BMGV: 1 µmol/mol creatinine, diamine [in urine]. Sampling time: post task.
hexamethylene-di-isocyanate	**NAOSH BGVs (Ireland, 1/2011) [Isocyanates]** BMGV: 1 µmol/mol creatinine, diamine [in urine]. Sampling time: post task.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Result	Value	Effects
polyhexamethylene diisocyanate	**DNEL - Workers - Short term - Inhalation**	1 mg/m³	Effects: Local
	DNEL - Workers - Long term - Inhalation	0,5 mg/m³	Effects: Local
hexamethylene-di-isocyanate	**DNEL - Workers - Short term - Inhalation**	1 mg/m³	Effects: Local
	DNEL - Workers - Long term - Inhalation	0,5 mg/m³	Effects: Local
	DNEL - Workers - Long term - Inhalation	0,035 mg/m³	Effects: Local
	DNEL - Workers - Short term - Inhalation	0,07 mg/m³	Effects: Local

PNECs

Product/ingredient name	Result	Value	Remarks
polyhexamethylene diisocyanate	**Fresh water**	0,127 mg/l	-
	Marine	0,0127 mg/l	-
	Fresh water sediment	266700 mg/kg dwt	-
	Marine water sediment	26670 mg/kg dwt	-

SECTION 8: Exposure controls/personal protection

	Soil	53182 mg/kg dwt	-
	Sewage Treatment Plant	38,28 mg/l	-
hexamethylene-di-isocyanate	**Fresh water**	0,127 mg/l	-
	Marine	0,0127 mg/l	-
	Sediment	266700 mg/kg dwt	-
	Soil	53182 mg/kg dwt	-
	Sewage Treatment Plant	38,28 mg/l	-
	Fresh water	>0,05 mg/l	-
	Fresh water sediment	>1,33 mg/kg	-
	Marine water	>0,005 mg/l	-
	Marine water sediment	>0,133 mg/kg	-
	Sewage Treatment Plant	55,6 mg/l	-
	Soil	>0,066 mg/kg	-

8.2 Exposure controls

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. Use eye protection according to EN 166. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.
The breakthrough time must be greater than the end use time of the product.
The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.
Gloves should be replaced regularly and if there is any sign of damage to the glove material.
Always ensure that gloves are free from defects and that they are stored and used correctly.
The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.
Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

SECTION 8: Exposure controls/personal protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. > 8 hours (breakthrough time): butyl rubber (0.6 mm) gloves

The recommendation for the type or types of glove to use when handling this product is based on information from the following source: EN374. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Wear overalls or long sleeved shirt. (EN 467)

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: organic vapour (Type A) and particulate filter (EN 141)

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Physical state : Liquid.

Colour : Clear. Colourless.

Odour : Mild.

Odour threshold : Not available.

Melting point/freezing point : Not available.

Initial boiling point and boiling range : Not relevant due to nature of the product.

Flammability (solid, gas) : Not available.

Lower and upper explosion limit : Does not contain sufficient volatile flammable components to form an explosive atmosphere under normal conditions of use.

Flash point : Closed cup: 237°C (458,6°F) [DIN EN ISO 2719-A]

Auto-ignition temperature : 445°C (833°F) [Literature polyhexamethylene diisocyanate]

Decomposition temperature : Not available.

pH : Not applicable. [Literature]

pH : Justification : Product is non-polar/aprotic.

Viscosity : Dynamic (room temperature): 1200 mPa·s [DIN EN ISO 3219]
Kinematic (room temperature): 1008 to 1062 mm^2/s [calculated.]
Kinematic (40°C): Not available.

Solubility(ies) :

Not available.

SECTION 9: Physical and chemical properties

Solubility in water : Not available.

Miscible with water : No.

Partition coefficient: n-octanol/water : Not applicable.

Vapour pressure : <0,3 kPa (<2,2502 mm Hg) [calculated.]

Evaporation rate : Not available.

Relative density : Not available.

Density : 1,13 to 1,19 g/cm³ [20°C (68°F)] [DIN 53217]

Vapour density : Not available.

Explosive properties : No unusual hazard if involved in a fire.

Oxidising properties : Not available.

Particle characteristics

Median particle size : Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : The product is stable.

10.3 Possibility of hazardous reactions : Hazardous reactions or instability may occur under certain conditions of storage or use.Amines and alcohols may cause exothermic reactions. Evolution of gases in closed containers causes overpressure and produces a risk of bursting. Precautions should be taken to minimise exposure to atmospheric humidity or water. CO_2 will be formed, which, in closed containers, could result in pressurisation.

10.4 Conditions to avoid : No specific data.

10.5 Incompatible materials : No specific data.

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity

Product/ingredient name	Result	Value
polyhexamethylene diisocyanate	**Rat - Oral - LD50**	>5000 mg/kg
hexamethylene-di-isocyanate	**Rabbit - Dermal - LD50**	>7000 mg/kg
	Rat - Inhalation - LCLo Dusts and mists	60 mg/m³ [4 hours]
	Rat - Inhalation - LC50 Dusts and mists	0,124 mg/m³ [4 hours]

Conclusion/Summary [Product] : Harmful if inhaled.

Acute toxicity estimates

SECTION 11: Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Concrex Sub Zero - Curing Agent	N/A	N/A	N/A	N/A	1,5
polyhexamethylene diisocyanate	N/A	N/A	N/A	N/A	1,5
hexamethylene-di-isocyanate	500	N/A	N/A	0,05	N/A

Skin corrosion/irritation

Product/ingredient name	Result	Exposure	Observation
polyhexamethylene diisocyanate	**Rabbit - Skin - Oedema**	-	-
	Rabbit - Skin - Moderate irritant	Amount/concentration applied: 500 mg	-
hexamethylene-di-isocyanate	**Rabbit - Skin - Erythema/Eschar**	-	-

Conclusion/Summary [Product] : Based on available data, the classification criteria are not met.

Ingredient name	Conclusion/Summary
hexamethylene-di-isocyanate	May cause skin irritation.

Serious eye damage/eye irritation

Product/ingredient name	Result	Exposure	Observation
polyhexamethylene diisocyanate	**Rabbit - Eyes - Cornea opacity**	-	-
	Rabbit - Eyes - Moderate irritant	Amount/concentration applied: 100 mg	-
hexamethylene-di-isocyanate	**Rabbit - Eyes - Redness of the conjunctivae**	-	-

Conclusion/Summary [Product] : Based on available data, the classification criteria are not met.

Ingredient name	Conclusion/Summary
hexamethylene-di-isocyanate	May cause eye irritation.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : May cause respiratory irritation.

Ingredient name	Conclusion/Summary
hexamethylene-di-isocyanate	May cause respiratory irritation.

Respiratory or skin sensitization

SECTION 11: Toxicological information

Product/ingredient name	Species - Route of exposure	Result
polyhexamethylene diisocyanate	**Guinea pig - skin**	Result: Sensitising
	Guinea pig - Respiratory	Result: Not sensitizing
	Mouse - skin	Result: Sensitising
hexamethylene-di-isocyanate	**Guinea pig - skin**	Result: Sensitising
	Guinea pig - Respiratory	Result: Sensitising

Skin

Conclusion/Summary [Product] : May cause an allergic skin reaction.

Ingredient name	Conclusion/Summary
hexamethylene-di-isocyanate	May cause sensitisation by skin contact.

Respiratory

Conclusion/Summary [Product] : Based on available data, the classification criteria are not met.

Ingredient name	Conclusion/Summary
hexamethylene-di-isocyanate	May cause sensitisation by inhalation.

Germ cell mutagenicity

Product/ingredient name	Species - Route of exposure	Result
polyhexamethylene diisocyanate	**Bacteria**	Result: Negative
	Mammalian-Animal	Result: Negative
	In vitro - Mammalian-Animal	Result: Negative

Conclusion/Summary [Product] : Based on available data, the classification criteria are not met.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Based on available data, the classification criteria are not met.

Reproductive toxicity

Not available.

Conclusion/Summary [Product] : Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Product/ingredient name	Result
polyhexamethylene diisocyanate	STOT SE 3, H335 (Respiratory tract irritation)
hexamethylene-di-isocyanate	STOT SE 3, H335 (Respiratory tract irritation)

Specific target organ toxicity (repeated exposure)

Not available.

SECTION 11: Toxicological information

Aspiration hazard

Not available.

Information on likely routes of exposure

Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : Harmful if inhaled. May cause respiratory irritation.

Skin contact : May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

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

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Product/ingredient name	Result
polyhexamethylene diisocyanate	**Chronic - Rat - Inhalation - NOAEL Dusts and mists** OECD 413 3,3 mg/m³ [5 days per week] [6 hours] **Sub-acute - Rat - Inhalation - LCLo Dusts and mists** OECD 412 4,3 mg/m³ [5 days per week] [6 hours] **Sub-chronic - Rat - Inhalation - LC50 Dusts and mists** OECD 412 14,7 mg/m³ [5 days per week] [6 hours] Toxic effects: Lung, Thorax, or Respiration - Structural or functional change in trachea or bronchi **Sub-acute - Rat - Inhalation - LC50 Dusts and mists** OECD 412 89,9 mg/m³ [5 days per week] [6 hours] Toxic effects: Lung, Thorax, or Respiration - Structural or functional change in trachea or bronchi
hexamethylene-di-isocyanate	**Chronic - Rat - Inhalation - LCLo Vapour**

SECTION 11: Toxicological information

OECD 453
0,025 p.p.m. [6 hours per day] [30 days]

Conclusion/Summary [Product] : Based on available data, the classification criteria are not met.

Ingredient name	Conclusion/Summary
polyhexamethylene diisocyanate	The inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.
hexamethylene-di-isocyanate	Irritating to respiratory system.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

Conclusion/Summary [Product] : The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species
polyhexamethylene diisocyanate	**Acute - LC50** >100 mg/l [96 hours]	Fish - Zebra barbel
	Acute - EC50 >100 mg/l [48 hours]	Daphnia spec.
	Acute - EC50 >10000 mg/l [3 hours]	Bacteria - Activated sludge
	Acute - IC50 >1000 mg/l [72 hours]	Algae
hexamethylene-di-isocyanate	**Acute - EC50** 842 mg/l [3 hours]	Bacteria
	Acute - EC50 >77,4 mg/l [72 hours]	Algae - Scenedesmus subspicatus

Conclusion/Summary [Product] : Based on available data, the classification criteria are not met.

Ingredient name	Conclusion/Summary
hexamethylene-di-isocyanate	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

12.2 Persistence and degradability

SECTION 12: Ecological information

Product/ingredient name	Test	Result
polyhexamethylene diisocyanate	-	2% [28 days] - Not readily
hexamethylene-di-isocyanate	-	42% [10 days]
	-	42% [28 days]

Conclusion/Summary [Product] : Not available.

Ingredient name	Conclusion/Summary
hexamethylene-di-isocyanate	Not readily biodegradable.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
polyhexamethylene diisocyanate	0,32 days [Fresh water] [23 °C]	50%; 0,49 day(s)	Not readily
hexamethylene-di-isocyanate	-	-	Not readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
polyhexamethylene diisocyanate	5,54	367,7	Low
hexamethylene-di-isocyanate	0,02	57,63	Low

12.4 Mobility in soil

Soil/water partition coefficient

Product/ingredient name	logKoc	Koc
hexamethylene-di-isocyanate	1,4	23,8009

Results of PMT and vPvM assessment

Product/ingredient name	PMT	P	M	T	vPvM	vP	vM
polyhexamethylene diisocyanate	No	No	No	No	No	No	No
hexamethylene-di-isocyanate	No	No	No	No	No	No	No

Mobility : Not available.

Conclusion/Summary : The product does not meet the criteria to be considered as a PMT or vPvM.

12.5 Results of PBT and vPvB assessment

Regulation (EC) No. 1907/2006 [REACH]

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
polyhexamethylene diisocyanate	No	No	No	No	No	No	No
hexamethylene-di-isocyanate	No	N/A	No	No	No	N/A	No

Regulation (EC) No. 1272/2008 [CLP]

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
polyhexamethylene diisocyanate	No	No	No	No	No	No	No
hexamethylene-di-isocyanate	No	No	No	No	No	No	No

SECTION 12: Ecological information

Conclusion/Summary Regulation (EC) No. 1272/2008 [CLP] : The product does not meet the criteria to be considered as a PBT or vPvB.

12.6 Endocrine disrupting properties

Not available.

Conclusion/Summary [Product] : The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance.

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Yes.

European waste catalogue (EWC)

Waste code	Waste designation
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.

SECTION 14: Transport information

Additional information ADR

Additional information ADN

Additional information IMDG

Additional information IATA

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
Concrex Sub Zero - Curing Agent	≥90	3
hexamethylene-di-isocyanate	≤0,1	74

Labelling : Not applicable.

Synthetic polymer microparticles - Designation 78

Generic identity of polymer(s) : Not applicable.

Total percentage of synthetic polymer microparticles : Not applicable.

Other EU regulations

VOC : The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the product label and/or technical data sheet for further information.

VOC for Ready-for-Use Mixture : IIA/j. Two-pack reactive performance coatings for specific end use such as floors. EU limit value for this product : 500g/l (2010.)
This product contains a maximum of 30 g/l VOC.

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

SECTION 15: Regulatory information

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Explosive precursors : Not applicable.

Ozone depleting substances (EU 2024/590)

Not listed.

Prior Informed Consent (PIC) (649/2012/EC)

Not listed.

Persistent Organic Pollutants (850/2004/EC)

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

Ireland

Biocidal products regulation : Not applicable.

References : Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001 (S.I. No. 619 of 2001)
Safety, Health and Welfare at Work (Carcinogens) Regulations 2001 (S.I. No. 78 of 2001)
Safety, Health and Welfare at Work (General Application) Regulations 2007
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

International regulations

Stockholm Convention on Persistent Organic Pollutants

List name	Ingredient name	Status
Not listed.		

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

List name	Ingredient name	Status
Not listed.		

CN code : 3214 10 10 00000

Inventory list

Australia : All components are listed or exempted.

Canada : All components are listed or exempted.

China : All components are listed or exempted.

Eurasian Economic Union : **Russian Federation inventory**: All components are listed or exempted.

Japan : **Japan inventory (CSCL)**: All components are listed or exempted.
Japan inventory (ISHL): All components are listed or exempted.

New Zealand : All components are listed or exempted.

Philippines : All components are listed or exempted.

Republic of Korea : All components are listed or exempted.

Taiwan : All components are listed or exempted.

SECTION 15: Regulatory information

Thailand : All components are listed or exempted.

Turkey : All components are listed or exempted.

United States : All components are active or exempted.

Viet Nam : All components are listed or exempted.

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Acute Tox. 4, H332	Calculation method
Skin Sens. 1, H317	Calculation method
STOT SE 3, H335	Calculation method

Full text of abbreviated H statements

Ireland

Full text of abbreviated H statements :

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.

Full text of classifications [CLP/GHS] :

Acute Tox. 1	ACUTE TOXICITY - Category 1
Acute Tox. 4	ACUTE TOXICITY - Category 4
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Resp. Sens. 1	RESPIRATORY SENSITISATION - Category 1
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

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Notice to reader

SECTION 16: Other information

IMPORTANT NOTE: The information in this Safety Data Sheet is based on the present state of knowledge and current legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications. The information contained in this data sheet (as may be amended from time to time) is not intended to be exhaustive and is presented in good faith and believed to be correct as of the date on which it is prepared. It is the user's responsibility to verify that this data sheet is current prior to using the product to which it relates. Persons using the information must make their own determinations as to the suitability of the relevant product for their purposes prior to use. Where those purposes are other than as specifically recommended in this safety data sheet, then the user uses the product at their own risk.

MANUFACTURER'S DISCLAIMER: the conditions, methods and factors affecting the handling, storage, application, use and disposal of the product are not under the control and knowledge of the manufacturer. Therefore the manufacturer does not assume responsibility for any adverse events which may occur in the handling, storage, application, use, misuse or disposal of the product and, so far as permitted by applicable law, the manufacturer expressly disclaims liability for any and all loss, damages and/or expenses arising out of or in any way connected to the storage, handling, use or disposal of the product. Safe handling, storage, use and disposal are the responsibility of the users. Users must comply with all applicable health and safety laws.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.