

# watco® SAFETY DATA SHEET

Concrex Sub Zero - Resin

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

### 1.1 Product identifier

**Product name** : Concrex Sub Zero - Resin  
**Product description** : repair product  
**Product type** : Liquid.  
**UFI** : 67Q0-Y0EJ-C00D-Q158

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

Identified uses	
Industrial Professional Consumer	
Uses advised against	Reason
None identified.	-

### 1.3 Details of the supplier of the safety data sheet

Watco UK Limited  
Eastgate Court  
195-205 High Street  
Guildford  
Surrey  
GU1 3EH  
Telephone no.: +44 (0) 1483 425000 (08:00 - 18:00)  
Fax no.: +44 (0) 1483 428888  
**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 : 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]

Eye Dam. 1, H318  
Skin Sens. 1, H317  
Aquatic Chronic 3, H412

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.

## SECTION 2: Hazards identification

### 2.2 Label elements

**Hazard pictograms**

:



**Signal word**

: Danger

**Hazard statements**

: H317 - May cause an allergic skin reaction.  
H318 - Causes serious eye damage.  
H412 - Harmful to aquatic life with long lasting effects.

**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. Wear eye or face protection.

**Response**

: P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

**Storage**

: Not applicable.

**Disposal**

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

**Hazardous ingredients**

: bis(4-(1,2-bis(ethoxycarbonyl)ethylamino)-3-methylcyclohexyl)methane  
tetraethylN,N'-( methylenedicyclohexane-4,1-diyl) bis-dl-aspartate  
diethyl fumarate  
diethyl fumarate  
pine oil  
Turpentine, oil

**Supplemental label elements**

: EUH211 - Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

**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**

: Not 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.

**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
bis(4-(1,2-bis(ethoxycarbonyl)ethylamino)-3-methylcyclohexyl) methane	REACH #: 01-0000015937-58 EC: 412-060-9 CAS: 136210-32-7 Index: 607-350-00-9	≥50 - ≤75	Skin Sens. 1, H317 Aquatic Chronic 3, H412	-	[1]
tetraethylN,N'-(methylenedicyclohexane-4,1-diyl) bis-dl-aspartate	REACH #: 01-0000017556-64 EC: 429-270-1 CAS: 136210-30-5 Index: 607-521-00-8	≥25 - ≤50	Skin Sens. 1, H317 Aquatic Chronic 3, H412	-	[1]
hydrocarbons, aromatic, C9	REACH #: 01-2119455851-35 List #: 918-668-5	≤5	Flam. Liq. 3, H226 STOT SE 3, H335 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066	-	[1]
diethyl fumarate	EC: 210-819-7 CAS: 623-91-6	≤3	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335	ATE [Oral] = 1780 mg/kg	[1]
diethyl fumarate	EC: 210-819-7 CAS: 623-91-6	≤3	Acute Tox. 4, H302 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335	ATE [Oral] = 1780 mg/kg	[1]
pine oil	CAS: 8002-09-3 List #: 616-792-1	≤0,3	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Chronic 2, H411	-	[1]
butyl glycollate	REACH #: 01-2119514685-36 EC: 230-991-7 CAS: 7397-62-8	≤0,3	Eye Dam. 1, H318 Repr. 2, H361	-	[1]
Turpentine, oil	REACH #: 01-2119553060-53 EC: 232-350-7 CAS: 8006-64-2 Index: 650-002-00-6	≤0,3	Flam. Liq. 3, H226 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Chronic 2, H411	ATE [Oral] = 500 mg/kg ATE [Dermal] = 1100 mg/kg ATE [Inhalation (vapours)] = 13,7 mg/l	[1] [2]

Concrex Sub Zero - Resin

## SECTION 3: Composition/information on ingredients

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

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

List numbers have no legal significance.

This mixture contains  $\geq 1\%$  of titanium dioxide. The Annex VI classification of titanium dioxide does not apply to this mixture according to Note 10.

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

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. 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. 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** : Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician. 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

## SECTION 4: First aid measures

### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur
- Ingestion** : Adverse symptoms may include the following:  
stomach pains

### 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. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous combustion products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides  
metal oxide/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.

## 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. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

## SECTION 6: Accidental release measures

**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). Water polluting material. May be harmful to the environment if released in large quantities.

### 6.3 Methods and material for containment and cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**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. 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

**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 breathe vapour or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. 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.

Concrex Sub Zero - Resin

SECTION 7: Handling and storage

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  
Ireland

Product/ingredient name	Exposure limit values
Turpentine, oil	NAOSH (Ireland, 3/2016). OELV-15min: 840 mg/m³ 15 minutes. OELV-15min: 150 ppm 15 minutes. OELV-8hr: 112 mg/m³ 8 hours. OELV-8hr: 20 ppm 8 hours.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. 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	Type	Exposure	Value	Population	Effects
tetraethylN,N'-(methylenedicyclohexane-4,1-diyl)bis-dl-aspartate	DNEL	Long term Oral	4 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	28 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	4 mg/kg bw/day	Workers	Systemic
hydrocarbons, aromatic, C9	DNEL	Long term Inhalation	150 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	25 mg/kg	Workers	Systemic
	DNEL	Long term Dermal	11 mg/kg	General population	Systemic
butyl glycollate	DNEL	Long term Inhalation	32 mg/m³	General population	Systemic
	DNEL	Long term Oral	11 mg/kg	General population	Systemic
	DNEL	Long term Dermal	34,7 mg/kg	Workers	Systemic
	DNEL	Long term Inhalation	21,2 mg/m³	Workers	Systemic
	DNEL	Long term Oral	2 mg/kg	General population	Systemic
	DNEL	Long term Dermal	20,8 mg/kg	General population	Systemic
	DNEL	Long term Dermal	0,28 mg/kg	General population	Local
	DNEL	Long term	43,5 mg/m³	General	Systemic



Concrex Sub Zero - Resin

## SECTION 8: Exposure controls/personal protection

Turpentine, oil	DNEL	Inhalation Long term	43,5 mg/m <sup>3</sup>	population General population	Local
	DNEL	Inhalation Short term	0,161 mg/cm <sup>2</sup>	Workers	Local
	DNEL	Dermal Short term	25 mg/kg bw/day	Workers	Systemic
	DNEL	Dermal Long term	5,98 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Inhalation Short term	0,081 mg/cm <sup>2</sup>	General population [Consumers]	Local
	DNEL	Inhalation Long term	1,06 mg/m <sup>3</sup>	General population [Consumers]	Systemic
	DNEL	Oral Long term	0,31 mg/kg bw/day	General population [Consumers]	Systemic

### PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
tetraethylN,N'-( methylenedicyclohexane-4,1-diyl) bis-dl-aspartate	Fresh water	0,00013 mg/l	-
	Marine	0,000013 mg/l	-
	Fresh water sediment	0,21 mg/kg dwt	-
	Marine water sediment	0,02 mg/kg dwt	-
	Soil	0,1 mg/kg dwt	-
	Sewage Treatment Plant	31,1 mg/l	-
	Secondary Poisoning	66,67 mg/kg	-
titanium dioxide	Fresh water	0,127 mg/l	-
	Marine	>1 mg/l	-
	Sewage Treatment Plant	>100 mg/l	-
	Fresh water sediment	>1000 mg/kg	-
	Marine water sediment	>100 mg/kg	-
	Soil	100 mg/kg	-
	Marine water	0,0184 mg/l	-
di-isobutyl ketone	Fresh water	0,184 mg/l	-
	Fresh water	0,03 mg/l	-
	Marine water	0,003 mg/l	-
	Fresh water sediment	0,46 mg/kg	-
	Marine water sediment	0,046 mg/kg	-
	Sewage Treatment Plant	2,55 mg/l	-
	Soil	0,0746 mg/kg	-
Reaction mass of ethylbenzene and xylene	Fresh water	0,327 mg/l	-
	Marine water	0,327 mg/l	-
	Fresh water sediment	12,46 mg/kg	-
	Marine water sediment	12,46 mg/kg	-
	Soil	2,31 mg/kg	-
	Sewage Treatment Plant	6,58 mg/l	-
	Soil	0,0746 mg/kg	-
butyl glycollate	Fresh water	0,05 mg/l	-
	Soil	0,0112 mg/kg	-
	Fresh water sediment	0,203 mg/kg	-
	Sewage Treatment Plant	232 mg/l	-
	Soil	0,0746 mg/kg	-
Turpentine, oil	Fresh water sediment	8,8 µg/l	-
	Marine	0,88 µg/l	-
	Fresh water sediment	2,27 mg/kg	-



## SECTION 8: Exposure controls/personal protection

2-methoxy-1-methylethyl acetate	Fresh water sediment	0,227 mg/kg	-
	Soil	0,45 mg/kg	-
	Sewage Treatment Plant	6,6 mg/l	-
	Fresh water	0,635 mg/l	-
	Fresh water sediment	3,29 mg/kg	-
	Marine water sediment	0,329 mg/kg	-
	Soil	0,29 mg/kg	-
	Sewage Treatment Plant	100 mg/l	-
xylene (mixture of isomeres)	Fresh water	0,327 mg/l	Sensitivity Distribution
	Marine water	0,327 mg/l	Sensitivity Distribution
	Fresh water sediment	12,46 mg/kg	Equilibrium Partitioning
	Marine water sediment	12,46 mg/kg	Equilibrium Partitioning
	Soil	2,31 mg/kg	Equilibrium Partitioning
	Sewage Treatment Plant	6,58 mg/l	-
ethylbenzene	Fresh water	0,1 mg/l	-
	Marine water	0,01 mg/l	-
	Fresh water sediment	13,7 mg/kg	-
	Marine water sediment	1,37 mg/kg	-
	Soil	2,68 mg/kg	-
	Sewage Treatment Plant	9,6 mg/l	-
2-methylpropan-1-ol	Fresh water	0,4 mg/l	-
	Marine water	0,04 mg/l	-
	Sewage Treatment Plant	10 mg/l	-
	Fresh water sediment	1,52 mg/kg	-
	Marine water sediment	0,125 mg/kg	-
	Soil	0,0699 mg/kg	-

### 8.2 Exposure controls

#### Appropriate engineering controls

- : If user operations generate dust, fumes, gas, vapour or mist, 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: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead. Recommended: safety glasses with side-shields (EN 166)

#### 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.

## SECTION 8: Exposure controls/personal protection

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

- 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): (EN 374) nitrile rubber (0.5mm)  
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: (EN 467) Overalls buttoned to the neck and wrist.
- 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 filter (Type A) (EN 140)
- 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** : Grey.
- 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** : Not available.
- Flash point** : Closed cup: >74°C (>165,2°F) [Literature]
- Auto-ignition temperature** : Not relevant due to nature of the product.
- Decomposition temperature** : Not available.
- pH** : Not applicable.
- pH : Justification** : Product is non-soluble (in water).
- Viscosity** : Dynamic: >500 mPa·s [Literature]
- Solubility(ies)** :

Concrex Sub Zero - Resin

SECTION 9: Physical and chemical properties

Not available.

- Solubility in water : Not available.
- Miscible with water : No.
- Partition coefficient: n-octanol/ water : Not applicable.
- Vapour pressure : <0,4 kPa (<3 mm Hg) [calculated.]
- Evaporation rate : Not available.
- Relative density : Not available.
- Density : 1,08 g/cm³ [20°C (68°F)] [DIN 53217]
- Vapour density : Not available.
- Explosive properties : Not available.
- 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 : Under normal conditions of storage and use, hazardous reactions will not occur.
- 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	Species	Dose	Exposure
bis(4-(1,2-bis(ethoxycarbonyl)ethylamino)-3-methylcyclohexyl) methane	LC50 Inhalation Dusts and mists	Rat - Male, Female	>4,224 mg/l	4 hours
tetraethylN,N'-(methylenedicyclohexane-4,1-diyl) bis-dl-aspartate	LC50 Inhalation Dusts and mists	Rat	>4,224 mg/m³	4 hours
hydrocarbons, aromatic, C9 diethyl fumarate diethyl fumarate pine oil	LD50 Oral	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	8400 mg/kg	-
	LD50 Oral	Rat	1780 mg/kg	-
	LD50 Oral	Rat	1780 mg/kg	-
	LD50 Dermal	Rabbit	5 g/kg	-
butyl glycollate Turpentine, oil	LD50 Oral	Rat	2,1 g/kg	-
	LD50 Oral	Rat	4595 mg/kg	-
	LC50 Inhalation Vapour	Rat	16600 mg/m³	2 hours
	LC50 Inhalation Vapour	Rat	13700 mg/m³	4 hours

Concrex Sub Zero - Resin				
SECTION 11: Toxicological information				
	LC50 Inhalation Vapour	Rat	13700 mg/m³	4 hours
	LD50 Oral	Rat	3956 mg/kg	-
	LDLo Dermal	Rabbit	5010 mg/kg	-

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

**Acute toxicity estimates**

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
hydrocarbons, aromatic, C9	8400	N/A	N/A	N/A	N/A
diethyl fumarate	1780	N/A	N/A	N/A	N/A
diethyl fumarate	1780	N/A	N/A	N/A	N/A
pine oil	2100	5000	N/A	N/A	N/A
butyl glycollate	4595	N/A	N/A	N/A	N/A
Turpentine, oil	500	1100	N/A	13,7	N/A

**Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
tetraethylN,N'-(methylenedicyclohexane-4,1-diyl) bis-dl-aspartate	Eyes - Redness of the conjunctivae	Rabbit	1	-	-
hydrocarbons, aromatic, C9	Skin - Mild irritant	Rabbit	-	-	-
	Eyes - Mild irritant	Rabbit	-	24 hours 100 UI	-
pine oil	Skin - Severe irritant	Rabbit	-	24 hours 500 milligrams	-
Turpentine, oil	Skin - Severe irritant	Human	-	0.1 Percent	-
	Skin - Severe irritant	Rabbit	-	500 microliters	-

**Conclusion/Summary**

**Skin** : Based on available data, the classification criteria are not met.

**Eyes** : Causes serious eye damage.

**Respiratory** : Based on available data, the classification criteria are not met.

**Sensitisation**

Product/ingredient name	Route of exposure	Species	Result
tetraethylN,N'-(methylenedicyclohexane-4,1-diyl) bis-dl-aspartate	skin	Guinea pig	Sensitising

**Conclusion/Summary**

**Skin** : May cause an allergic skin reaction.

**Respiratory** : Based on available data, the classification criteria are not met.

**Mutagenicity**

Product/ingredient name	Test	Experiment	Result
tetraethylN,N'-(methylenedicyclohexane-4,1-diyl) bis-dl-aspartate	OECD 471	Experiment: In vitro Subject: Bacteria	Negative
	OECD 473	Experiment: In vitro Subject: Mammalian-Animal	Negative

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

**Carcinogenicity**

## SECTION 11: Toxicological information

It has been observed that the carcinogenic hazard of this product arises when respirable dust is inhaled in quantities leading to significant impairment of particle clearance mechanisms in the lung.

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

### Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
hydrocarbons, aromatic, C9	-	-	Negative	Mammal - species unspecified	Route of exposure unreported	-

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

### Teratogenicity

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

### Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
hydrocarbons, aromatic, C9	Category 3	-	Respiratory tract irritation
diethyl fumarate	Category 3	-	Narcotic effects
diethyl fumarate	Category 3	-	Respiratory tract irritation
diethyl fumarate	Category 3	-	Respiratory tract irritation

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Product/ingredient name	Result
hydrocarbons, aromatic, C9	ASPIRATION HAZARD - Category 1
pine oil	ASPIRATION HAZARD - Category 1
Turpentine, oil	ASPIRATION HAZARD - Category 1

**Information on likely routes of exposure** : Not available.

### Potential acute health effects

**Eye contact** : Causes serious eye damage.  
**Inhalation** : No known significant effects or critical hazards.  
**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** : Adverse symptoms may include the following:  
pain  
watering  
redness  
**Inhalation** : No specific data.  
**Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur  
**Ingestion** : Adverse symptoms may include the following:  
stomach pains

## SECTION 11: Toxicological information

### 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	Species	Dose	Exposure
tetraethylN,N'-(methylenedicyclohexane-4,1-diyl) bis-dl-aspartate	Sub-acute NOAEL Oral	Rat	1000 mg/kg	-

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

**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.

#### 11.2.2 Other information

Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
bis(4-(1,2-bis(ethoxycarbonyl)ethylamino)-3-methylcyclohexyl)methane tetraethylN,N'-(methylenedicyclohexane-4,1-diyl) bis-dl-aspartate	Chronic NOEC 0,01 mg/l	Daphnia spec.	21 days
	Acute EC50 88,6 mg/l	Daphnia spec.	48 hours
	Acute IC50 113 mg/l	Algae - Scenedesmus subspicatus	72 hours
	Acute LC50 66 mg/l	Fish	96 hours
diethyl fumarate diethyl fumarate pine oil	Chronic NOEC 0,01 mg/l	Daphnia spec.	21 days
	Acute LC50 4500 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 4500 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute EC50 24,5 ppm Fresh water	Daphnia spec. - Daphnia magna	48 hours
	Acute LC50 18,35 ppm Fresh water	Fish - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
Turpentine, oil	Acute EC50 17 mg/l	Algae	72 hours
	Acute EC50 8,8 mg/l	Daphnia spec.	48 hours
	Acute LC50 29 mg/l	Fish	96 hours

**Conclusion/Summary** : Harmful to aquatic life with long lasting effects.

## SECTION 12: Ecological information

### 12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
bis(4-(1,2-bis(ethoxycarbonyl)ethylamino)-3-methylcyclohexyl)methane tetraethylN,N'-(methylenedicyclohexane-4,1-diyl) bis-DL-aspartate	OECD 301F	13 % - 28 days	-	-
	OECD 301F	13 % - Not readily - 28 days	-	-
	OECD 302C	0 % - Not readily - 28 days	-	-

**Conclusion/Summary** : This product has not been tested for biodegradation. Based on available data, the classification criteria are not met.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
bis(4-(1,2-bis(ethoxycarbonyl)ethylamino)-3-methylcyclohexyl)methane tetraethylN,N'-(methylenedicyclohexane-4,1-diyl) bis-DL-aspartate	-	-	Not readily
	Fresh water 28 days, pH 4, 25°C (OECD 111) Fresh water 1 days, pH 7, 25°C (OECD 111) Fresh water 0,7 days, pH 9, 25°C (OECD 111)	-	Not readily
	hydrocarbons, aromatic, C9 butyl glycollate	- -	Readily Readily

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
bis(4-(1,2-bis(ethoxycarbonyl)ethylamino)-3-methylcyclohexyl)methane tetraethylN,N'-(methylenedicyclohexane-4,1-diyl) bis-DL-aspartate	5,99	0,25	low
	5,16	0,25	low
hydrocarbons, aromatic, C9	3.7 to 4.5	10 to 2500	high
butyl glycollate	0,38	-	low
Turpentine, oil	4,5	-	high

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

### 12.5 Results of PBT and vPvB assessment

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

### 12.6 Endocrine disrupting properties

Not available.

### 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
10 13 11	wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10

**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
<b>14.1 UN number or ID number</b>	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>14.2 UN proper shipping name</b>	-	-	-	-
<b>14.3 Transport hazard class(es)</b>	-	-	-	-
<b>14.4 Packing group</b>	-	-	-	-
<b>14.5 Environmental hazards</b>	No.	No.	No.	No.

**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 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** : Not applicable.  
on the manufacture,  
placing on the market  
and use of certain  
dangerous substances,  
mixtures and articles

#### Other EU regulations

**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

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

#### Ozone depleting substances (1005/2009/EC)

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

Concrex Sub Zero - Resin

## SECTION 15: Regulatory information

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 00

### Inventory list

Australia	: Not determined.
Canada	: Not determined.
China	: Not determined.
Eurasian Economic Union	: <b>Russian Federation inventory:</b> Not determined.
Japan	: <b>Japan inventory (CSCL):</b> Not determined. <b>Japan inventory (ISHL):</b> Not determined.
New Zealand	: Not determined.
Philippines	: At least one component is not listed.
Republic of Korea	: At least one component is not listed.
Taiwan	: Not determined.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: At least one component is not listed.
Viet Nam	: Not determined.

**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.

<b>Abbreviations and acronyms</b>	<p>ATE = Acute Toxicity Estimate</p> <p>CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]</p> <p>DMEL = Derived Minimal Effect Level</p> <p>DNEL = Derived No Effect Level</p> <p>EUH statement = CLP-specific Hazard statement</p> <p>N/A = Not available</p> <p>PBT = Persistent, Bioaccumulative and Toxic</p> <p>PNEC = Predicted No Effect Concentration</p> <p>RRN = REACH Registration Number</p> <p>SGG = Segregation Group</p> <p>vPvB = Very Persistent and Very Bioaccumulative</p>
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### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Eye Dam. 1, H318	Expert judgment
Skin Sens. 1, H317	Expert judgment
Aquatic Chronic 3, H412	Expert judgment

### Full text of abbreviated H statements

### Ireland

## SECTION 16: Other information

<b>Full text of abbreviated H statements</b>	:	H226 Flammable liquid and vapour. H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H312 Harmful in contact with skin. 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. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H361 Suspected of damaging fertility or the unborn child. H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects. EUH066 Repeated exposure may cause skin dryness or cracking.
<b>Full text of classifications [CLP/GHS]</b>	:	Acute Tox. 4 ACUTE TOXICITY - Category 4 Aquatic Chronic 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 Aquatic Chronic 3 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 Asp. Tox. 1 ASPIRATION HAZARD - Category 1 Eye Dam. 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 Eye Irrit. 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 Flam. Liq. 3 FLAMMABLE LIQUIDS - Category 3 Repr. 2 REPRODUCTIVE TOXICITY - Category 2 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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<b><u>Notice to reader</u></b>		

**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,**

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878 - Ireland

Concrex Sub Zero - Resin

**SECTION 16: Other information**

we cannot guarantee that these are the only hazards that exist.