



SAFETY DATA SHEET
HEXAMETHYLENE DIISOCYANATE OLIGOMERS ISOCYANURATE TYPE

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

1.1. Product identifier

Product name HEXAMETHYLENE DIISOCYANATE OLIGOMERS ISOCYANURATE TYPE
Product number 51230
Synonyms; trade names Resin Bound PRO UVR PART B
REACH registration number 01-2119485796-17-XXXX
EC number 931-274-8

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

Identified uses Binder Chemical Intermediate Adhesive.

1.3. Details of the supplier of the safety data sheet

Supplier

The Resin Mill
Unit 7-8 The Ringway Centre
Beck Road
Huddersfield
HD1 5DG
01484 400855
info@theresinmill.co.uk

1.4. Emergency telephone number

Emergency telephone 01484 400855 Mon-Thur 8am-5pm, Fri 8am-4pm

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified
Health hazards Acute Tox. 4 - H332 Skin Sens. 1 - H317 STOT SE 3 - H335
Environmental hazards Not Classified

Classification (67/548/EEC or 1999/45/EC) Xn; R20. Xi; R37. R43

2.2. Label elements

EC number 931-274-8

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Pictogram



Signal word	Warning
Hazard statements	H317 May cause an allergic skin reaction. H332 Harmful if inhaled. H335 May cause respiratory irritation.
Precautionary statements	P261 Avoid breathing vapour/ spray. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P302+P352 IF ON SKIN: Wash with plenty of water. P312 Call a POISON CENTER/ doctor if you feel unwell. P333+P313 If skin irritation or rash occurs: Get medical advice/ attention. P405 Store locked up.
Supplemental label information	EUH204 Contains isocyanates. May produce an allergic reaction.
Contains	HEXAMETHYLENE DIISOCYANATE OLIGOMERS ISOCYANURATE TYPE

2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

SECTION 3: Composition/information on ingredients

3.1. Substances

HEXAMETHYLENE DIISOCYANATE OLIGOMERS ISOCYANURATE TYPE	60-100%	
CAS number: —	EC number: 931-274-8	REACH registration number: 01-2119485796-17-XXXX
Classification	Classification (67/548/EEC or 1999/45/EC)	
Acute Tox. 4 - H332	Xn; R20. Xi; R37. R43	
Skin Sens. 1 - H317		
STOT SE 3 - H335		

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Product name	HEXAMETHYLENE DIISOCYANATE OLIGOMERS ISOCYANURATE TYPE
REACH registration number	01-2119485796-17-XXXX
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SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention immediately.
Ingestion	Rinse mouth thoroughly with water. Do not induce vomiting unless under the direction of medical personnel. Get medical attention.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention promptly if symptoms occur after washing.

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Eye contact Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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

Inhalation Harmful if inhaled. Irritating to respiratory system.

Skin contact May cause an allergic skin reaction.

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

Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Isocyanates. Hydrogen cyanide (HCN). Nitrous gases (NOx).

5.3. Advice for firefighters

Protective actions during firefighting Contain and collect extinguishing water. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Containers can burst violently or explode when heated, due to excessive pressure build-up.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Keep unnecessary and unprotected personnel away from the spillage. Provide adequate ventilation. If ventilation is inadequate, suitable respiratory protection must be worn. No action shall be taken without appropriate training or involving any personal risk. Wear protective clothing as described in Section 8 of this safety data sheet. Approach the spillage from upwind. Avoid contact with skin and eyes. Avoid inhalation of vapours.

6.2. Environmental precautions

Environmental precautions Avoid the spillage or runoff entering drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Absorb spillage with inert, damp, non-combustible material. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13. Flush contaminated area with plenty of water.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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Usage precautions	Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation.
Advice on general occupational hygiene	Do not eat, drink or smoke when using this product. Take off immediately all contaminated clothing and wash it before reuse. Remove contaminated clothing and protective equipment before entering eating areas. Wash after use and before eating, smoking and using the toilet.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions	Store in tightly-closed, original container in a dry and cool place. Keep away from food, drink and animal feeding stuffs. Avoid exposure to high temperatures or direct sunlight. Store away from the following materials: Water, moisture. Acids. Alkalis. Amines. Oxidising agents. Alcohols.
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7.3. Specific end use(s)

Specific end use(s)	The identified uses for this product are detailed in Section 1.2.
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SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Ingredient comments	No exposure limits known for ingredient(s).
DNEL	Workers - Inhalation; Long term local effects: 0.5 mg/m ³ Workers - Inhalation; Short term local effects: 1 mg/m ³
PNEC	- Fresh water; 0.127 mg/l - Marine water; 0.0127 mg/l - Intermittent release; 1.27 mg/l - Sediment (Freshwater); 266700 mg/kg - Sediment (Marinewater); 26670 mg/kg - STP; 38.3 mg/l - Soil; 53182 mg/kg

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8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

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Eye/face protection	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. It is recommended that gloves are made of the following material: Butyl rubber. Neoprene. Thickness: 0.5 mm Nitrile rubber. Thickness: 0.35 mm The selected gloves should have a breakthrough time of at least 8 hours. To protect hands from chemicals, gloves should comply with European Standard EN374.
Other skin and body protection	Wear appropriate clothing to prevent any possibility of skin contact.
Hygiene measures	When using do not eat, drink or smoke. Take off immediately all contaminated clothing and wash it before reuse. Remove contaminated clothing and protective equipment before entering eating areas. Wash at the end of each work shift and before eating, smoking and using the toilet.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn. Combination filter, type A2/P2. EN 136/140/145/143/149

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Colourless to pale yellow.
Odour	Slight.
pH	No information available.
Melting point	-24°C
Initial boiling point and range	No information available.
Flash point	158°C
Evaporation rate	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapour pressure	0.00246 Pa @ 20°C
Vapour density	No information available.
Bulk density	~ 1160 kg/m ³
Solubility(ies)	Insoluble in water.
Partition coefficient	No information available.
Auto-ignition temperature	445°C
Decomposition Temperature	250°C
Viscosity	1750 - 3250 mPa s @ 25°C
Explosive properties	Not considered to be explosive.

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Oxidising properties There are no chemical groups present in the product that are associated with oxidising properties.

9.2. Other information

Other information No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Stable at normal ambient temperatures and when used as recommended.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Reactions with the following materials may generate heat: Amines. Alcohols.

10.4. Conditions to avoid

Conditions to avoid Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials to avoid Amines. Alcohols. Acids. Alkalis. Oxidising agents. water

10.6. Hazardous decomposition products

Hazardous decomposition products Does not decompose when used and stored as recommended.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ >2500 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ >2000 mg/kg, Dermal, Rat

Acute toxicity - inhalation

Notes (inhalation LC₅₀) LD₅₀ 390 - 543 mg/m³, Inhalation, Rat

ATE inhalation (dusts/mists mg/l) 1.58

Skin corrosion/irritation

Animal data Slightly irritating. Rabbit

Serious eye damage/irritation

Serious eye damage/irritation Slightly irritating. Rabbit

Respiratory sensitisation

Respiratory sensitisation Not sensitising. Guinea pig

Skin sensitisation

Skin sensitisation Sensitising. Guinea pig

Germ cell mutagenicity

Genotoxicity - in vitro Gene mutation: Negative.

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Carcinogenicity

Carcinogenicity No information available.

Reproductive toxicity

Reproductive toxicity - fertility No information available.

Specific target organ toxicity - single exposure

STOT - single exposure May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure NOAEL 3.3 mg/m³, Inhalation, Rat

Aspiration hazard

Aspiration hazard Based on available data the classification criteria are not met.

Inhalation

Harmful if inhaled. Irritating to respiratory system.

Ingestion

May cause discomfort if swallowed.

Skin contact

May cause an allergic skin reaction. Prolonged skin contact may cause temporary irritation.

Eye contact

May cause temporary eye irritation.

SECTION 12: Ecological Information

Ecotoxicity

The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

12.1. Toxicity

Acute toxicity - fish

LC₅₀, 96 hours: > 100 mg/l, Brachydanio rerio (Zebra Fish)

Acute toxicity - aquatic invertebrates

EC₅₀, 48 hours: 127 mg/l, Daphnia magna

Acute toxicity - aquatic plants

IC₅₀, 72 hours: >1000 mg/l, Scenedesmus subspicatus

Acute toxicity - microorganisms

EC₅₀, 3 hours: 3828 mg/l, Activated sludge

12.2. Persistence and degradability

Persistence and degradability The product is not readily biodegradable.

Biodegradation

- Degradation (%) 1%: 28 days

12.3. Bioaccumulative potential

Bioaccumulative potential

Bioaccumulation is unlikely.

Partition coefficient

No information available.

12.4. Mobility in soil

Mobility

Immiscible with water.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment

This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects

No information available.

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information	Waste is classified as hazardous waste. Do not puncture or incinerate, even when empty.
Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General	The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).
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14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

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

EU legislation	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Commission Regulation (EU) No 2015/830 of 28 May 2015.
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15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

SECTION 16: Other information

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Abbreviations and acronyms used in the safety data sheet	ATE: Acute Toxicity Estimate. ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road. ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways. CAS: Chemical Abstracts Service. DNEL: Derived No Effect Level. IATA: International Air Transport Association. IMDG: International Maritime Dangerous Goods. Kow: Octanol-water partition coefficient. LC ₅₀ : Lethal Concentration to 50 % of a test population. LD ₅₀ : Lethal Dose to 50% of a test population (Median Lethal Dose). PBT: Persistent, Bioaccumulative and Toxic substance. PNEC: Predicted No Effect Concentration. REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006. RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail. vPvB: Very Persistent and Very Bioaccumulative. IARC: International Agency for Research on Cancer. MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. cATpE: Converted Acute Toxicity Point Estimate. BCF: Bioconcentration Factor. BOD: Biochemical Oxygen Demand. EC ₅₀ : 50% of maximal Effective Concentration. LOAEC: Lowest Observed Adverse Effect Concentration. LOAEL: Lowest Observed Adverse Effect Level. NOAEC: No Observed Adverse Effect Concentration. NOAEL: No Observed Adverse Effect Level. NOEC: No Observed Effect Concentration. LOEC: Lowest Observed Effect Concentration. DMEL: Derived Minimal Effect Level. EL50: Exposure Limit 50 hPa: Hectopascal LL50: Lethal Loading fifty OECD: Organisation for Economic Co-operation and Development POW: Octanol-water partition coefficient SCBA: self-contained breathing apparatus STP: Sewage Treatment Plant VOC: Volatile Organic Compounds
Classification abbreviations and acronyms	Acute Tox. = Acute toxicity Aquatic Acute = Hazardous to the aquatic environment (acute) Aquatic Chronic = Hazardous to the aquatic environment (chronic)
Key literature references and sources for data	Supplier's information.
Revision comments	This is first issue.
Revision date	06/04/2017
Revision	01
SDS number	51230
Version number	1.000

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SDS status	Approved.
Signature	J Spenceley
Risk phrases in full	R20 Harmful by inhalation. R37 Irritating to respiratory system. R43 May cause sensitisation by skin contact.
Hazard statements in full	H317 May cause an allergic skin reaction. H332 Harmful if inhaled. H335 May cause respiratory irritation.