

Identification of the Substance/Preparation and the Company/Undertaking

Product name	:	Hybrane® H 1500
Supplier	:	Polymer Factory Sweden AB Teknikringen 48 SE-114 28 Stockholm, Sweden http://www.polymerfactory.com
Further information obtainable from	:	Polymer Factory Sweden AB (as above)
Information in case of emergency	:	(Int.) +46 8 337043 (Emergency Response Center, Sweden)

Composition/Information on Ingredients

Chemical Family	:	Hyperbranched Polyesteramide based on proprietary knowledge
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Hazards Identification

Physical /Chemical hazards	:	Expected to be Non-toxic, Non-irritant and Non-sensibilising and Non-mutagenic based on studies with analogous compounds
Environmental Hazards	:	None Expected
Effects of Over-Exposure	:	None Expected

First Aid Measures

After Inhalation	:	Move to fresh air
After Skin Contact	:	Wash with soap and water
After Eye Contact	:	Rinse immediately with plenty of water. Always seek medical advice
After Swallowing	:	Do not induce vomiting because of risk of aspiration. Rinse mouth with water. Seek medical advice.

Fire Fighting Measures

Suitable Extinguishing Agents	:	Powder, Watermist, Foam, Carbon Dioxide (CO ₂)
Specific Hazards	:	Hazardous thermal decomposition and combustion products include Nitrogen Oxides (NO ₂), Ammonia (NH ₃), Carbon Monoxide (CO), Carbon Dioxide (CO ₂)
Fire Fighting Instructions	:	Use self-contained breathing apparatus and skin protection

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Accidental Release Measures

- Person-Related Safety Precautions** : Use appropriate protection,
*see section on "Exposure Control and Personal Protection" below
- Environmental Protection** : No hazards expected.
*see section on "Ecological Information" below
- Cleaning and Collecting** : Collect spill material in sealable, labeled containers for later disposal

Handling and Storage

- Safe Handling** : Normal standard practices of hygiene are applicable
- Storage** : 1. Store in closed containers
2. Do not store portable containers in direct sunlight.
3. Keep containers closed when not in use.
- Recommended Packaging** : Stainless Steel, Metal, Aluminium, Nickel, PP and Glass

Exposure Control & Personal Protection

Personal Protective Equipment

- i) **Respiratory Protection** : Use gas mask or filter respiratory as necessary
- ii) **Skin & Body Protection** : Not applicable, but handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and removal of the material from eyes, skin and clothing.
- iii) **Eye protection** : Face shield or safety goggles as necessary
- iv) **Other Protection** : Eye wash facility and emergency shower

- Occupational Exposure Limits** : Respiratory limit : 5 mg/m³
Inhalation Limit : 10 mg/m³

- *Engineering Controls** : Use ventilation as necessary

Physical and Chemical Properties

General information

- Molecular Formula** : (C₆H₁₅NO₂·C₈H₁₀O₃)_x
- Building Block** : Cyclohexane-1,2-dicarboxylic acid anhydride
- Branching unit** : Diisopropanol Amine
- End groups** : Secondary OH
- Theoretical Molecular Weight** : 1200 g/mol
- Form (aggregation form)** : Solid as powder or lumps
- Color** : Off-white
- Odor** : None

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Change in condition

Melting Point/Melting Range	:	Not available
Boiling Point/Boiling Range	:	> 250 °C
Glass Transition Temperature, Tg	:	78 °C

Specific Gravity : Not determined

Solubility at 20 °C

i) Water	:	Insoluble
ii) Ethanol	:	> 500 g/l

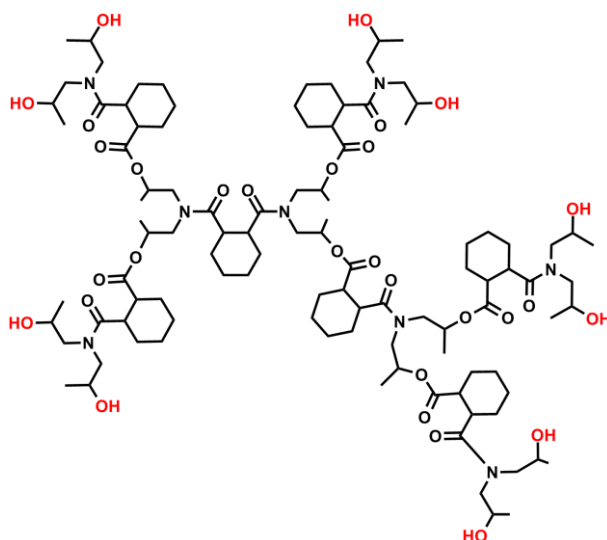
*Also soluble in chlorinated hydrocarbons

Octanol/Water Coefficient : Not determined

Flash Point : Not determined

Vapour Pressure : < 1 hPA (20 °C)

Typical Idealized Structure



Stability and Reactivity

Stability	:	Thermally stable to 200°C for at least 5 minutes
Thermal decomposition	:	Hazardous thermal decomposition producing toxic nitrogen oxide, carbon monoxide and carbon dioxide
Conditions to be avoided	:	Unknown
Incompatibility	:	No incompatibilities known

Toxicological Information

Acute Toxicity	:	ORAL (LD ₅₀): >2000 mg/kg [rat]
Chronic Toxicity	:	None expected

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Primary irritant effect

- On the skin** : In Rabbit studies, very slight irritation was observed which resolved within 24 hours
- Sensitization** : None expected based on studies with analogous compounds.

Other information

- Mutagenicity** : None expected based on studies with analogous compounds
- Reproductive Toxicity** : None expected based on studies with analogous compounds

Ecological Information

- Mobility** : Low vapour pressure, insoluble in water
- Persistence and degradability** : Unknown
- Bio-accumulation** : None expected based on studies with analogous compounds
- Ecotoxicity** : This hybrane product is expected to be non-toxic for fish (zebra fish) and *Daphnia Magna*

Disposal Consideration

- Recommendation** : Disposal must be made according to official regulations
- Methods of Disposal** : Dispose by combustion in an incinerator for chemical waste

Transport Information*

- *Non Regulated
- UN Identification No.** : Not Applicable

Regulatory Information*

- *Non-dangerous according to EC classification
- USA** : Listed on Toxic Substances Control Act (TSCA)

Other information

If you require any further information concerning this or any of our other products then please contact us at the address given above or visit our website at <http://www.polymerfactory.com>