

Identification of the Substance/Preparation and the Company/Undertaking

Product name	:	Hybrane® HV 2680
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	:	If irritation persists, get medical attention
After Skin Contact	:	If irritation persists, get medical attention
After Eye Contact	:	If irritation persists, get medical attention
After Swallowing	:	Get medical attention

Fire Fighting Measures

Suitable Extinguishing Agents	:	Powder B, Powder A, Water, 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** : Not determined
- *Engineering Controls** : Use ventilation as necessary

Physical and Chemical Properties

General information

- Molecular Formula** : Polymer
- Building Block** : Cyclohexane-1,2-dicarboxylic acid anhydride
- Branching unit** : Diisopropanol Amine
- End groups** : Coconut fatty acid ester (about 80%), Secondary OH (about 20%)
- Molecular Weight** : Mn ≈ 2600
- Form (aggregation form)** : Resinous solid
- Color** : Yellow
- Odor** : Slight

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Change in condition

Melting Point/Melting Range	:	Not determined
Boiling Point/Boiling Range	:	Not determined
Glass Transition Temperature, Tg	:	Not determined

Specific Gravity : Not determined

Solubility at 20 °C

i) **Water** : Insoluble

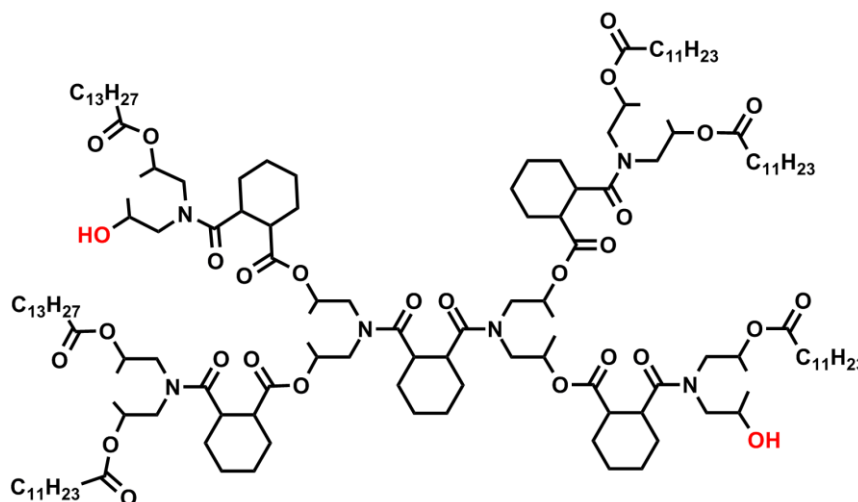
*Also soluble in aromatic and chlorinated hydrocarbons

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 up to 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** : None expected based on studies with analogous compounds
Sensitization : None expected based on studies with analogous compounds

Other information

- Mutagenicity** : None expected based on studies with analogous compounds in the *Salmonella Typhimurium* reverse mutation assay
Reproductive Toxicity : None expected

Ecological Information

- Mobility** : Low vapour pressure, insoluble in water
Persistence and degradability : Not determined
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 : NOT listed on the 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>