

ITW Engineered Polymers

SAFETY DATA SHEET EPOCAST-F Hardener

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

1.1. Product identifier

Product name EPOCAST-F Hardener
Product number 10145

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

Identified uses Hardener.
Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier ITW Engineered Polymers GmbH
Liebigstrasse 21
24145 Kiel/GERMANY
+49 (0) 431-71791-0
+49 (0) 431-717-91-95
mail.springer@itwep.com

1.4. Emergency telephone number

Emergency telephone +44(0)1235 239 670 (24h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

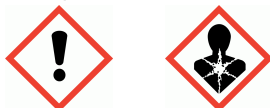
Classification

Physical hazards Not Classified
Health hazards Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Resp. Sens. 1 - H334 Skin Sens. 1
- H317 Carc. 2 - H351 STOT SE 3 - H335 STOT RE 2 - H373
Environmental hazards Not Classified

Classification (67/548/EEC or 1999/45/EC) Xn;R20,R48/20. Carc. Cat. 3;R40. R42/43. Xi;R36/37/38.

2.2. Label elements

Pictogram



Signal word Danger

EPOCAST-F Hardener

Hazard statements	<p>H351 Suspected of causing cancer.</p> <p>H373 May cause damage to organs through prolonged or repeated exposure.</p> <p>H317 May cause an allergic skin reaction.</p> <p>H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.</p> <p>H315 Causes skin irritation.</p> <p>H335 May cause respiratory irritation.</p> <p>H319 Causes serious eye irritation.</p> <p>H332 Harmful if inhaled.</p>
Precautionary statements	<p>P280 Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>P284 [In case of inadequate ventilation] wear respiratory protection.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P403+P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P501 Dispose of contents/container in accordance with national regulations.</p>
Contains	DIPHENYLMETHANEDIISOCYANATE -Isomers & homologues
Supplementary precautionary statements	<p>P201 Obtain special instructions before use.</p> <p>P202 Do not handle until all safety precautions have been read and understood.</p> <p>P260 Do not breathe vapour/spray.</p> <p>P261 Avoid breathing vapour/spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P308+P313 IF exposed or concerned: Get medical advice/attention.</p> <p>P312 Call a POISON CENTER/doctor if you feel unwell.</p> <p>P314 Get medical advice/attention if you feel unwell.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P332+P313 If skin irritation occurs: Get medical advice/attention.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/attention.</p> <p>P337+P313 If eye irritation persists: Get medical advice/attention.</p> <p>P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P405 Store locked up.</p>

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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DIPHENYLMETHANEDIISOCYANATE -Isomers & homologues		60-100%
CAS number: 9016-87-9		
Classification	Classification (67/548/EEC or 1999/45/EC)	
Acute Tox. 2 - H330	Xn;R20. Xi;R36/37/38. R42.	
Skin Irrit. 2 - H315		
Eye Irrit. 2 - H319		
Resp. Sens. 1 - H334		
Skin Sens. 1 - H317		
Carc. 2 - H351		
STOT SE 3 - H335		
STOT RE 2 - H373		

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Get medical attention if any discomfort continues. Place unconscious person on the side in the recovery position and ensure breathing can take place. Never give anything by mouth to an unconscious person.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Keep affected person under observation. Get medical attention. Show this Safety Data Sheet to the medical personnel. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen.
Ingestion	Rinse mouth thoroughly with water. Give plenty of water to drink. Give milk instead of water if readily available. Keep affected person under observation. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention immediately. Show this Safety Data Sheet to the medical personnel. Get medical attention immediately.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Wash skin thoroughly with soap and water.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Get medical attention. Show this Safety Data Sheet to the medical personnel.

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

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	May cause an asthma-like shortness of breath. Irritation of nose, throat and airway.
Ingestion	May cause discomfort if swallowed. May cause stomach pain or vomiting.
Skin contact	Skin irritation. Mild dermatitis, allergic skin rash.
Eye contact	May cause severe eye irritation.

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

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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 Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting Containers close to fire should be removed or cooled with water.

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 No smoking, sparks, flames or other sources of ignition near spillage. Ensure suitable respiratory protection is worn during removal of spillages in confined areas. For personal protection, see Section 8. Avoid inhalation of vapours and contact with skin and eyes.

6.2. Environmental precautions

Environmental precautions Avoid discharge into drains or watercourses or onto the ground. 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 sand or other inert absorbent. Collect and place in suitable waste disposal containers and seal securely.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid inhalation of vapours/spray and contact with skin and eyes. Protect electric equipment against sparking in case of risk of explosion. Persons with impaired lung function should not handle this product. Provide adequate ventilation. Avoid inhalation of vapours. Use approved respirator if air contamination is above an acceptable level. Static electricity and formation of sparks must be prevented.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep away from heat, sparks and open flame. Protect from freezing and direct sunlight.

Storage class Chemical storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

DIPHENYLMETHANEDIISOCYANATE -Isomers & homologues

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Long-term exposure limit (8-hour TWA): WEL 0.02 mg/m³(Sen)

Short-term exposure limit (15-minute): WEL 0.07 mg/m³(Sen)

WEL = Workplace Exposure Limit

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

Wear chemical splash goggles.

Hand protection

It is recommended that gloves are made of the following material: Neoprene.

Other skin and body protection

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.

Hygiene measures

Use engineering controls to reduce air contamination to permissible exposure level. Wash promptly if skin becomes contaminated.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Gas filter, type A2.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Brown.
Flash point	>200°C
Relative density	1.23 @ °C
Auto-ignition temperature	500°C
Viscosity	>60 s @ 23°C

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Reacts strongly with water.

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 No potentially hazardous reactions known.

10.4. Conditions to avoid

Conditions to avoid Avoid exposure to high temperatures or direct sunlight. Avoid heat. Avoid contact with the following materials: Acids. Oxidising agents. Avoid contact with water.

10.5. Incompatible materials

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Materials to avoid Strong acids. Strong alkalis. Water, steam, water mixtures. Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Heating may generate the following products: Toxic and corrosive gases or vapours. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Oxides of nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 10,000

Species Rat

Notes (oral LD₅₀) CAS 9016-87-9

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 10,000

Species Rabbit

Notes (dermal LD₅₀) CAS 9016-87-9

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 0.493

Species Rat

Notes (inhalation LC₅₀) CAS 9016-87-9 Based on available data the classification criteria are not met.

ATE inhalation (vapours mg/l) 11.0

Skin corrosion/irritation

Animal data Irritating.

Extreme pH Irritating.

Respiratory sensitisation

Respiratory sensitisation There is evidence that the material can lead to respiratory hypersensitivity.

Skin sensitisation

Skin sensitisation Sensitising.

General information

Prolonged and repeated contact with solvents over a long period may lead to permanent health problems. The product contains small quantities of isocyanate. May cause respiratory allergy. May cause respiratory system irritation.

Inhalation

Vapours may irritate throat/respiratory system. A single exposure may cause the following adverse effects: Coughing. Difficulty in breathing. May cause respiratory allergy.

Ingestion

May cause stomach pain or vomiting.

Skin contact

Irritating to skin. May cause sensitisation by skin contact.

Eye contact

May cause severe eye irritation.

SECTION 12: Ecological Information

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Ecotoxicity There are no data on the ecotoxicity of this product.

12.1. Toxicity

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: >500mg/L mg/l, Daphnia magna

Acute toxicity - aquatic plants IC₅₀, 72 hours: (Scenedesmus subspicatus) 1.64mg/L mg/l, Algae

Chronic toxicity - fish early life stage Not available.

Chronic toxicity - aquatic invertebrates Not available.

12.2. Persistence and degradability

Persistence and degradability The product is not readily biodegradable.

Biodegradation - Degradation (%) <10: 28 days
OECD 302C

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

12.4. Mobility in soil

Mobility Not considered mobile.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste is classified as hazardous waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Disposal methods Residues and empty containers should be taken care of as hazardous waste according to local and national provisions. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Waste class 07 02 08

SECTION 14: Transport information

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

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

14.5. Environmental hazards

14.6. Special precautions for user

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

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SECTION 15: Regulatory information

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

EU legislation 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).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision date	16/03/2015
Revision	1
Risk phrases in full	R20 Harmful by inhalation. R36/37/38 Irritating to eyes, respiratory system and skin. R40 Limited evidence of a carcinogenic effect. R42 May cause sensitisation by inhalation. R42/43 May cause sensitisation by inhalation and skin contact. R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
Hazard statements in full	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. H351 Suspected of causing cancer. H373 May cause damage to organs through prolonged or repeated exposure.