SAFETY DATA SHEET
EPOCAST 36-P HARDENER

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

1.1. Product identifier
Product name
EPOCAST 36-P HARDENER
Product number
10055

1.2. Relevant identified uses of the substance or mixture and uses advised against
Identified uses
Hardener.
Uses advised against
None known.

1.3. Details of the supplier of the safety data sheet
Supplier
ITW Performance Polymers
Bay 150
Shannon Industrial Estate
Co. Clare
Ireland
V14 DF82
353(61)771500
353(61)471285
customerservice.shannon@itwpp.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 (EC 1272/2008)
Physical hazards
Not Classified
Health hazards
Skin Corr. 1C - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317
Environmental hazards
Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

2.2. Label elements
Pictogram

Signal word
Danger
Hazard statements
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H410 Very toxic to aquatic life with long lasting effects.
EPOCAST 36-P HARDENER

Precautionary statements

P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing.
Rinse skin with water or shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

Contains

Fatty acids, C18 unsat., reaction products with triethylenetetramine,
PENTAETHYLENEHEXAMINE

Supplementary precautionary statements

P260 Do not breathe vapour/spray.
P261 Avoid breathing vapour/spray.
P264 Wash contaminated skin thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352 IF ON SKIN: Wash with plenty of water.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310 Immediately call a POISON CENTER/doctor.
P321 Specific treatment (see medical advice on this label).
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.
P391 Collect spillage.
P405 Store locked up.
P501 Dispose of contents/container in accordance with national regulations.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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<tr>
<th>Crystalline Silica (Quartz)</th>
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<tr>
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<table>
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<tr>
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<td>Eye Dam. 1 - H318</td>
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<td></td>
<td>Skin Sens. 1A - H317</td>
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<tr>
<td></td>
<td>Aquatic Acute 1 - H400</td>
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<td>Aquatic Chronic 1 - H410</td>
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</table>
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PENTAETHYLENEHEXAMINE

<p>| | | |</p>
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Classification

Skin Corr. 1B - H314
Eye Dam. 1 - H318
Skin Sens. 1 - H317
Aquatic Acute 1 - H400
Aquatic Chronic 1 - H410

The full text for all hazard statements is displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information
Remove contaminated clothing.

Inhalation
Get medical attention. Move affected person to fresh air at once.

Ingestion
Get medical attention immediately. Do not induce vomiting. Rinse nose, mouth and throat with water. Give plenty of water to drink.

Skin contact
It is important to remove the substance from the skin immediately. Wash skin thoroughly with soap and water. Get medical attention immediately.

Eye contact
Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention.

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. May cause allergy. May cause hypersensitivity.

Inhalation
No specific symptoms known.

Ingestion
May cause discomfort if swallowed.

Skin contact
Skin irritation. Allergic rash.

Eye contact
May cause blurred vision and serious eye damage. Corneal damage.

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
Water spray, foam, dry powder or carbon dioxide.

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

Specific hazards
Vapours/gases/fumes of: Carbon monoxide (CO). Nitrous gases (NOx).

Hazardous combustion products
When heated, vapours/gases hazardous to health may be formed.
5.3. Advice for firefighters

Protective actions during firefighting
Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

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
Provide adequate ventilation. In case of spills, beware of slippery floors and surfaces. Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions
Avoid discharge to the aquatic environment. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up
Absorb in vermiculite, dry sand or earth and place into containers. Collect and place in suitable waste disposal containers and seal securely. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

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

Usage precautions
Read and follow manufacturer’s recommendations. Do not eat, drink or smoke when using the product. Contaminated clothing and shoes must be discarded. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions
Store in tightly-closed, original container. Keep container dry. Keep container tightly closed. Avoid contact with oxidising agents. Keep away from food, drink and animal feeding stuffs. Do not store near heat sources or expose to high temperatures.

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

DNEL
Industry - Inhalation; Short term : 8550 mg/m³
Industry - Dermal; Long term : 0.91 mg/kg/day
Industry - Inhalation; Long term : 1.59 mg/m³
Industry - Dermal; Long term : 0.044
Professional - Dermal; Short term : 13 mg/kg/day
Professional - Dermal; Long term : 0.4 mg/kg/day
Professional - Oral; Long term : 0.65 mg/kg/day
Professional - Oral; Short term : 32 mg/kg/day
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PNEC
- Fresh water; 0.0025 mg/l
- Marine water; 0.0025 mg/l
- Sediment; 0.22 mg/kg
- Soil; 0.18 mg/kg
- STP; 1.64 mg/l

Fatty acids, C18 unsat., reaction products with triethylenetetramine (CAS: 68919-79-9)

DNEL
Workers - Inhalation; Long term systemic effects: 2.9 mg/m³
Workers - Dermal; Long term systemic effects: 0.42 mg/kg/day
Consumer - Inhalation; Long term systemic effects: 0.87 mg/m³
Consumer - Dermal; Long term systemic effects: 0.25 mg/kg/day
Consumer - Oral; Long term systemic effects: 0.25 mg/kg/day

8.2. Exposure controls

Protective equipment

Eye/face protection
The following protection should be worn: Chemical splash goggles.

Hand protection
It is recommended that gloves are made of the following material: Butyl rubber. It should be noted that liquid may penetrate the gloves. Frequent changes are recommended. 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. (EN 374)

Other skin and body protection
Wear apron or protective clothing in case of contact.

Hygiene measures
Use engineering controls to reduce air contamination to permissible exposure level. When using do not eat, drink or smoke. Good personal hygiene procedures should be implemented. Remove contaminated clothing and wash the skin thoroughly with soap and water after work.

Respiratory protection
If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Gas filter, type A2. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN136. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140.

Thermal hazards
Not applicable.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance
Coloured liquid.

Colour
Brown.

Odour
Characteristic.

pH
Not determined. Not determined.

Melting point
Not determined.

Initial boiling point and range
Not determined.

Flash point
°C Not determined.

Evaporation rate
Not applicable.
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Upper/lower flammability or explosive limits
Not applicable.

Vapour pressure
<0.1 kPa @ °C

Vapour density
Not applicable.

Relative density
1 @ °C

Auto-ignition temperature
Not applicable.

Viscosity
Not applicable.

Oxidising properties
Not applicable.

9.2. Other information
Other information
None.

Volatile organic compound
This product contains a maximum VOC content of 0 g/litre.

SECTION 10: Stability and reactivity

10.1. Reactivity
Reactivity
There are no known reactivity hazards associated with this product.

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
The following materials may react with the product: Acids. Not relevant.

10.4. Conditions to avoid
Conditions to avoid
Avoid exposure to high temperatures or direct sunlight. Avoid contact with strong oxidising agents.

10.5. Incompatible materials
Materials to avoid
Not determined.

10.6. Hazardous decomposition products
Hazardous decomposition products
Not known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Toxicological effects
No data recorded.

Specific target organ toxicity - single exposure
STOT - single exposure
None ,

Specific target organ toxicity - repeated exposure
STOT - repeated exposure
None ,

Inhalation
No specific health hazards known.

Ingestion
May cause discomfort if swallowed.

Skin contact
Corrosive. Prolonged contact causes serious tissue damage.
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Eye contact

Risk of serious damage to eyes.

Acute and chronic health hazards

The product contains an epoxy resin. May cause sensitisation or allergic reactions in sensitive individuals.

SECTION 12: Ecological Information

Ecotoxicity

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

12.1. Toxicity

Acute aquatic toxicity

Acute toxicity - fish

LC₅₀, 96 hours: 180 mg/l, Fish

Acute toxicity - aquatic invertebrates

EC₅₀, 48 hours: 17.5 mg/l, Daphnia magna

Acute toxicity - aquatic plants

IC₅₀, 72 hours: 0.7 mg/l, Algae

12.2. Persistence and degradability

Persistence and degradability

No data available.

12.3. Bioaccumulative potential

Bioaccumulative potential

-3.67

12.4. Mobility in soil

Mobility

Not determined.

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

None known.

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

Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Waste liquid components should be suitable for incineration at an approved facility. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

Waste class

08 04 09*

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 3082

UN No. (IMDG) 3082

UN No. (ICAO) 3082

UN No. (ADN) 3082

14.2. UN proper shipping name
EPOCAST 36-P HARDENER

Proper shipping name (ADR/RID)  ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TRIETHYLENETETRAMINE, PENTAETHYLENEHEXAMINE)

Proper shipping name (IMDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TRIETHYLENETETRAMINE, PENTAETHYLENEHEXAMINE)

Proper shipping name (ICAO) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TRIETHYLENETETRAMINE, PENTAETHYLENEHEXAMINE)

Proper shipping name (ADN) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TRIETHYLENETETRAMINE, PENTAETHYLENEHEXAMINE)

14.3. Transport hazard class(es)
ADR/RID class 9
ADR/RID classification code M6
ADR/RID label 9
IMDG class 9
ICAO class/division 9
ADN class 9
Transport labels

14.4. Packing group
ADR/RID packing group III
IMDG packing group III
ADN packing group III
ICAO packing group III

14.5. Environmental hazards
Environmentally hazardous substance/marine pollutant

14.6. Special precautions for user
EmS F-A, S-F
ADR transport category 3
Emergency Action Code *3Z
Hazard Identification Number (ADR/RID) 90
Tunnel restriction code (E)

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

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
## EPOCAST 36-P HARDENER

**National regulations**  

**EU legislation**  

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

### SECTION 16: Other information

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<th>24/05/2018</th>
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<td>Revision</td>
<td>6</td>
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**Hazard statements in full**  
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H350 May cause cancer.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company’s knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.