## 1. Identification

**Product identifier**

**Product name**  Chockfast Orange Hardener

**Product number**  1560D, 1010U Hardener, 1020U Hardener

**Recommended use of the chemical and restrictions on use**

**Application**  Hardener.

**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

**Emergency telephone number**

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

## 2. Hazard(s) identification

**Classification of the substance or mixture**

**Physical hazards**  Not Classified

**Health hazards**  Acute Tox. 4 - H312 Skin Corr. 1B - H314 Skin Sens. 1 - H317

**Environmental hazards**  Aquatic Chronic 3 - H412

**Human health**  Corrosive. Prolonged contact causes serious eye and tissue damage.

**Label elements**

**Pictogram**

![Pictogram]

**Signal word**  Danger

**Hazard statements**  H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.
Chockfast Orange Hardener

Precautionary statements

P260 Do not breathe vapor/ spray.
P261 Avoid breathing vapor/ spray.
P264 Wash contaminated skin thoroughly after handling.
P272 Contaminated work clothing must not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.
P302+P352 If on skin: Wash with plenty of water.
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a poison center/ doctor.
P312 Call a poison center/ doctor if you feel unwell.
P321 Specific treatment (see medical advice on this label).
P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.
P405 Store locked up.
P501 Dispose of contents/ container in accordance with national regulations.

Contains

TRIETHYLENETETRAMINE

Other hazards

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

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>TRIETHYLENETETRAMINE</th>
<th>60-100%</th>
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<tr>
<td>CAS number: 112-24-3</td>
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Classification

Acute Tox. 4 - H312
Skin Corr. 1B - H314
Eye Dam. 1 - H318
Skin Sens. 1 - H317
Aquatic Chronic 3 - H412

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

4. First-aid measures

Description of first aid measures

General information

Do not breathe vapour. Avoid contact with skin and eyes. Chemical burns must be treated by a physician.

Inhalation

Move affected person to fresh air at once. Consult a physician for specific advice.

Ingestion

Do not induce vomiting. Give plenty of water to drink. Get medical attention immediately.

Skin Contact

Remove affected person from source of contamination. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.
Chockfast Orange Hardener

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.

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.

Indication of immediate medical attention and special treatment needed

Notes for the doctor
No specific recommendations. If in doubt, get medical attention promptly.

5. Fire-fighting measures

Extinguishing media
Suitable extinguishing media
Extinguish with the following media: Foam, carbon dioxide or dry powder. Water spray, fog or mist.

Special hazards arising from the substance or mixture

Specific hazards
Avoid breathing fire gases or vapors.

Advice for firefighters

Protective actions during firefighting
Keep up-wind to avoid fumes. Control run-off water by containing and keeping it out of sewers and watercourses.

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

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions
Avoid contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet.

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.

Methods and material for containment and cleaning up

Methods for cleaning up
Absorb spillage with non-combustible, absorbent material. Containers with collected spillage must be properly labeled with correct contents and hazard symbol.

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

7. Handling and storage

Precautions for safe handling

Usage precautions
Avoid contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet. No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products.

Conditions for safe storage, including any incompatibilities

Storage precautions
Store in tightly-closed, original container in a dry and cool place. Store away from incompatible materials (see Section 10).
Chockfast Orange Hardener

Specific end use(s)  The identified uses for this product are detailed in Section 1.

8. Exposure Controls/personal protection

Ingredient comments  No exposure limits known for ingredient(s).

Exposure controls

Protective equipment

- Appropriate engineering controls
  Provide adequate ventilation.

Eye/face protection
Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles. Personal protective equipment for eye and face protection should comply with OSHA 1910.133.

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. The selected gloves should have a breakthrough time of at least 8 hours. To protect hands from chemicals, gloves should comply with OSHA 1910.138 and be demonstrated to be impervious to the chemical and resist degradation. Gloves made from the following material may provide suitable chemical protection: Nitrile rubber. Butyl rubber. Chloroprene rubber.

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

Hygiene measures
Provide eyewash station and safety shower. Eating, smoking and water fountains prohibited in immediate work area. No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products.

Respiratory protection
If ventilation is inadequate, suitable respiratory protection must be worn. Respirator selection must be based on exposure levels, the hazards of the product and the safe working limits of the selected respirator. Check that the respirator fits tightly and the filter is changed regularly. Wear a respirator fitted with the following cartridge: Gas filter, type A2. Half mask and quarter mask respirators with replaceable filter cartridges should comply with OSHA 1910.134.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

- Appearance  Liquid.
- Color  Colorless to pale yellow.
- Odor  Ammonia.
- pH  pH (diluted solution): 12 100g/l water @ 20oC
- Initial boiling point and range  277°C @ 760 mm Hg
- Flash point  122°C Closed cup.
- Upper/lower flammability or explosive limits
  - Upper flammable/explosive limit: N/D
  - Lower flammable/explosive limit: N/D
- Vapor pressure  <0.001 kPa @ °C
Chockfast Orange Hardener

**Vapor density**  
5.0

**Relative density**  
0.98 @ 20°C

**Solubility(ies)**  
Miscible with water.

**Partition coefficient**  
: LOG Pow:<0

**Auto-ignition temperature**  
335°C

**Viscosity**  
30 mPa s @ 20°C

**Other information**  
Not available.

10. Stability and reactivity

**Reactivity**  
Strong oxidizing agents.

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

**Possibility of hazardous reactions**  
Not available.

**Conditions to avoid**  
Avoid excessive heat for prolonged periods of time. Avoid exposure to high temperatures or direct sunlight. Avoid heat, flames and other sources of ignition.

**Materials to avoid**  
Strong oxidizing agents.

**Hazardous decomposition products**  
Thermal decomposition or combustion products may include the following substances: Nitrous gases (NOx). Oxides of the following substances: Carbon dioxide (CO2). Carbon monoxide (CO). Vapours/gases/fumes of: Ammonia or amines.

11. Toxicological information

**Information on toxicological effects**

**Acute toxicity - dermal**

**ATE dermal (mg/kg)**  
1,375.0

**Inhalation**  
Vapors irritate the respiratory system. May cause coughing and difficulties in breathing.

**Ingestion**  
Ingestion may cause severe irritation of the mouth, the esophagus and the gastrointestinal tract.

**Skin Contact**  
Corrosive. Prolonged contact causes serious tissue damage. May cause skin sensitization or allergic reactions in sensitive individuals. Overexposure may cause the following adverse effects: Blistering may occur. Redness. Mild dermatitis, allergic skin rash.

**Eye contact**  
This product is strongly corrosive. Immediate first aid is imperative.

**Acute and chronic health hazards**  
This product is corrosive. This product may cause skin and eye irritation. Prolonged contact may cause burns.

**Route of exposure**  
Inhalation Skin absorption Ingestion.

**Target Organs**  
Central nervous system Respiratory system, lungs Liver Kidneys

12. Ecological Information

**Ecotoxicity**  
The product contains substances which are toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.
Chockfast Orange Hardener

**Acute aquatic toxicity**

Acute toxicity - fish  
LC₅₀, 96 hours: 570 mg/l, Fish

Acute toxicity - aquatic invertebrates  
EC₅₀, 48 hours: 31 mg/l, Daphnia magna

Acute toxicity - aquatic plants  
IC₅₀, 72 hours: 20 mg/l, Algae

**Persistence and degradability**

Persistence and degradability  
The product is not readily biodegradable.

**Bioaccumulative potential**

Partition coefficient  
: LOG Pow:<0

**Mobility in soil**

Mobility  
Not considered mobile.

**Other adverse effects**

Not available.

### 13. Disposal considerations

**Waste treatment methods**

**General information**  
Waste should be treated as controlled 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 class**  
08 04 99

### 14. Transport information

**General**  
No other information known.

**UN Number**

UN No. (TDG)  
2259

UN No. (IMDG)  
2259

UN No. (ICAO)  
2259

UN No. (DOT)  
2259

**UN proper shipping name**

Proper shipping name (TDG)  
TRIETHYLENETETRAMINE

Proper shipping name (IMDG)  
TRIETHYLENETETRAMINE

Proper shipping name (ICAO)  
TRIETHYLENETETRAMINE

Proper shipping name (DOT)  
TRIETHYLENETETRAMINE

**Transport hazard class(es)**

TDG class  
8

TDG label(s)  
8

IMDG Class  
8

ICAO class/division  
8
Chockfast Orange Hardener

Transport labels

Packing group

<table>
<thead>
<tr>
<th>Packing Group</th>
<th>II</th>
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<tbody>
<tr>
<td>TDG Packing Group</td>
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<td>IMDG packing group</td>
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<td>ICAO packing group</td>
<td>II</td>
</tr>
<tr>
<td>DOT packing group</td>
<td>II</td>
</tr>
</tbody>
</table>

Environmental hazards

Environmentally Hazardous Substance No.

Special precautions for user

EmS F-A, S-B

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information required.

15. Regulatory information

16. Other information

Revision date 11/5/2018
Revision 14
Supersedes date 4/6/2018

Hazard statements in full

H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H412 Harmful 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.