SAFETY DATA SHEET  
Chockfast Orange Hardener 620 TS

1. Identification

Product identifier
Product name  
Chockfast Orange Hardener 620 TS

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  
mail@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  
Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317
Environmental hazards  
Aquatic Chronic 2 - H411

Label elements
Pictogram

Signal word  
Danger

Hazard statements
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H411 Toxic to aquatic life with long lasting effects.
Chockfast Orange Hardener 620 TS

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 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.
P310 Immediately call a poison center/ doctor.
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.
P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.
P405 Store locked up.
P501 Dispose of contents/ container in accordance with national regulations.

Contains
FATTY ACIDS, TALL-OIL, REACTION PRODUCTS WITH TETRAETHYLENEPENTAMINE, TETRAETHYLENEPENTAMINE, 2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL

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

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>FATTY ACIDS, TALL-OIL, REACTION PRODUCTS WITH TETRAETHYLENEPENTAMINE</td>
<td>60-100%</td>
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<tr>
<td>CAS number: 68953-36-6</td>
<td></td>
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<tr>
<td>Classification</td>
<td></td>
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<tr>
<td>Skin Corr. 1B - H314</td>
<td></td>
</tr>
<tr>
<td>Eye Dam. 1 - H318</td>
<td></td>
</tr>
<tr>
<td>Skin Sens. 1 - H317</td>
<td></td>
</tr>
<tr>
<td>Aquatic Chronic 2 - H411</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>TETRAETHYLENEPENTAMINE</td>
<td>10-30%</td>
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<tr>
<td>CAS number: 112-57-2</td>
<td></td>
</tr>
<tr>
<td>Classification</td>
<td></td>
</tr>
<tr>
<td>Acute Tox. 4 - H302</td>
<td></td>
</tr>
<tr>
<td>Acute Tox. 4 - H312</td>
<td></td>
</tr>
<tr>
<td>Skin Corr. 1B - H314</td>
<td></td>
</tr>
<tr>
<td>Eye Dam. 1 - H318</td>
<td></td>
</tr>
<tr>
<td>Skin Sens. 1 - H317</td>
<td></td>
</tr>
<tr>
<td>Aquatic Chronic 2 - H411</td>
<td></td>
</tr>
</tbody>
</table>
Chockfast Orange Hardener 620 TS

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL  1-5%
CAS number: 90-72-2

Classification
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

Inhalation Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. For breathing difficulties, oxygen may be necessary. Get medical attention if any discomfort continues.

Ingestion DO NOT induce vomiting. Get medical attention immediately. Drink a few glasses of water or milk.

Skin Contact Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation persists after washing.

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

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 Extinguish with the following media: Carbon dioxide (CO2). Dry chemicals. Water.

Special hazards arising from the substance or mixture

Specific hazards No unusual fire or explosion hazards noted.

Advice 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 Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation.

Environmental precautions Avoid release to the environment. Contain spillage with sand, earth or other suitable non-combustible material.

Methods and material for containment and cleaning up
Chockfast Orange Hardener 620 TS

Methods for cleaning up
Contain and absorb spillage with sand, earth or other non-combustible material. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. If involved in a fire, shut off flow if it can be done without risk.

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. 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. Provide appropriate ventilation/respiratory protection against decomposition products during welding/flame cutting operations and to protect against dust during sanding grinding of cured product.

Conditions for safe storage, including any incompatibilities

Storage precautions
Store in a cool and well-ventilated place. Avoid heat, flames and other sources of ignition. Store away from incompatible materials (see Section 10).

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 general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

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

Hand protection
It is recommended that chemical-resistant, impervious gloves are worn. Wear protective gloves made of the following material: Butyl rubber. Polyvinyl chloride (PVC). Neoprene. To prevent repeated or prolonged skin contact, wear impervious clothing and boots. To protect hands from chemicals, gloves should comply with OSHA 1910.138 and be demonstrated to be impervious to the chemical and resist degradation. The selected gloves should have a breakthrough time of at least 8 hours.

Hygiene measures
Provide eyewash station and safety shower. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap and water if skin becomes contaminated. Promptly remove any clothing that becomes wet or contaminated.

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid.</td>
</tr>
<tr>
<td>pH</td>
<td>pH (diluted solution): alkaline 5</td>
</tr>
<tr>
<td>Melting point</td>
<td>n/d°C</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>&lt;1 (butyl acetate = 1)</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>&lt;0.01 mm Hg @ °C</td>
</tr>
<tr>
<td>Vapor density</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.95 @ °C</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>N/D</td>
</tr>
<tr>
<td>Volatility</td>
<td>0</td>
</tr>
</tbody>
</table>

10. Stability and reactivity

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

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

Possibility of hazardous reactions
Not available.

Conditions to avoid
Avoid heat, flames and other sources of ignition.

Materials to avoid
No specific material or group of materials is likely to react with the product to produce a hazardous situation.

Hazardous decomposition products
Thermal decomposition or combustion products may include the following substances: Acrid smoke or fumes. Ammonia or amines. Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

11. Toxicological information

Information on toxicological effects

Acute toxicity - oral
ATE oral (mg/kg) 3,677.34

Acute toxicity - dermal
ATE dermal (mg/kg) 8,090.14

General information
Causes burns. May cause sensitisation by skin contact.

Inhalation
Irritation of nose, throat and airway. Irritating. Symptoms following overexposure may include the following: Nausea, vomiting. Stomach pain.

Ingestion
Causes irritation, a burning sensation of the mouth, throat and gastrointestinal tract and abdominal pain.

Skin Contact
May cause sensitisation by skin contact.

Eye contact
May cause severe eye irritation. Vapor or spray may cause eye damage, impaired sight or blindness.
Chockfast Orange Hardener 620 TS

Route of entry
Skin and/or eye contact Ingestion. Inhalation

Medical Symptoms
Repeated skin contact can cause sensitisation, with itching, rashes or swelling of the skin. May cause respiratory sensitisation/asthmatic response. Repeated and/or prolonged exposure may result in adverse respiratory effects such as asthma.

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL

Acute toxicity - oral
Acute toxicity oral (LD₅₀ mg/kg) 2,169.0
Species Rat

12. Ecological Information

Ecotoxicity There are no data on the ecotoxicity of this product.
Toxicity Not considered toxic to fish.
Persistence and degradability
Persistence and degradability There are no data on the degradability of this product.
Bioaccumulative potential Bio-Accumulative Potential No data available on bioaccumulation.
Mobility in soil Mobility Not considered mobile.

13. Disposal considerations

Waste treatment methods
General information When handling waste, the safety precautions applying to handling of the product should be considered.
Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

14. Transport information

General No other information known.

UN Number
UN No. (TDG) 1760
UN No. (IMDG) 1760
UN No. (ICAO) 1760
UN No. (DOT) 1760

UN proper shipping name
Proper shipping name (TDG) CORROSIVE LIQUID, N.O.S. (TETRAETHYLENEPENTAMINE, BIS[(DIMETHYLAMINO)METHYL]PHENOL)
Chockfast Orange Hardener 620 TS

Proper shipping name (IMDG)  CORROSIVE LIQUID, N.O.S. (TETRAETHYLENEPENTAMINE, BIS[(DIMETHYLAMINO)METHYL]PHENOL)
Proper shipping name (ICAO)  CORROSIVE LIQUID, N.O.S. (TETRAETHYLENEPENTAMINE, BIS[(DIMETHYLAMINO)METHYL]PHENOL)
Proper shipping name (DOT)  CORROSIVE LIQUID, N.O.S. (TETRAETHYLENEPENTAMINE, BIS[(DIMETHYLAMINO)METHYL]PHENOL)

Transport hazard class(es)
TDG class  8
TDG label(s)  8
IMDG Class  8
ICAO class/division  8

Transport labels

Packing group
TDG Packing Group  III
IMDG packing group  III
ICAO packing group  III
DOT packing group  III

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  4/5/2018
Revision  6
Supersedes date  5/3/2016

Hazard statements in full
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.
Chockfast Orange Hardener 620 TS