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

1.1. Product identifier
Product name Chockfast Orange Hardener 620 TS

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

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

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.
H411 Toxic to aquatic life with long lasting effects.
Chockfast Orange Hardener 620 TS

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/ 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.
P310 Immediately call a POISON CENTER/ doctor.

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

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+P311 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.
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.
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

<table>
<thead>
<tr>
<th>FATTY ACIDS, TALL-OIL, REACTION PRODUCTS WITH TETRAETHYLENEPENTAMINE</th>
<th>60-100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 68953-36-6</td>
<td>EC number: 273-201-6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Corr. 1B - H314</td>
</tr>
<tr>
<td>Eye Dam. 1 - H318</td>
</tr>
<tr>
<td>Skin Sens. 1 - H317</td>
</tr>
<tr>
<td>Aquatic Chronic 2 - H411</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TETRAETHYLENEPENTAMINE</th>
<th>10-30%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 112-57-2</td>
<td>EC number: 203-986-2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 4 - H302</td>
</tr>
<tr>
<td>Acute Tox. 4 - H312</td>
</tr>
<tr>
<td>Skin Corr. 1B - H314</td>
</tr>
<tr>
<td>Eye Dam. 1 - H318</td>
</tr>
<tr>
<td>Skin Sens. 1 - H317</td>
</tr>
<tr>
<td>Aquatic Chronic 2 - H411</td>
</tr>
</tbody>
</table>
Chockfast Orange Hardener 620 TS

<table>
<thead>
<tr>
<th>2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL</th>
<th>1-5%</th>
</tr>
</thead>
</table>

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.

SECTION 4: First aid measures

4.1. 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.

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.

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

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Specific hazards
No unusual fire or explosion hazards noted.

5.3. Advice for firefighters

Protective actions during firefighting
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
Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation.

6.2. Environmental precautions

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

6.3. 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.

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 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.

7.2. 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).

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

8.2. 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 European Standard EN166.

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 European Standard EN374. 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.
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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 European Standard EN140.

SECTION 9: Physical and Chemical Properties

9.1. 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>Vapour pressure</td>
<td>&lt;0.01 mm Hg @ °C</td>
</tr>
<tr>
<td>Vapour 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>
</tbody>
</table>

9.2. Other information

Vollatility 0

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

Not available.

10.4. Conditions to avoid

Conditions to avoid

Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials to avoid

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

10.6. Hazardous decomposition products

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.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 3,677.34
Chockfast Orange Hardener 620 TS

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. Vapour or spray may cause eye damage, impaired sight or blindness.

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

SECTION 12: Ecological Information

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

12.1. Toxicity
Toxicity Not considered toxic to fish.

12.2. Persistence and degradability
Persistence and degradability There are no data on the degradability of this product.

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 available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Chockfast Orange Hardener 620 TS

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.

SECTION 14: Transport information

General
No other information known.

14.1. UN number
UN No. (ADR/RID) 1760
UN No. (IMDG) 1760
UN No. (ICAO) 1760

14.2. UN proper shipping name
Proper shipping name (ADR/RID) CORROSIVE LIQUID, N.O.S. (TETRAETHYLENEPENTAMINE, BIS[(DIMETHYLAMINO)METHYL]PHENOL)
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)

14.3. Transport hazard class(es)
ADR/RID class 8
ADR/RID label 8
IMDG class 8
ICAO class/division 8

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

14.5. Environmental hazards
Environmentally hazardous substance/marine pollutant No.

14.6. Special precautions for user
EmS F-A, S-B
Emergency Action Code 2X
Chockfast Orange Hardener 620 TS

Hazard Identification Number  80
(ADR/RID)

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

Transport in bulk according to No information required.
Annex II of MARPOL 73/78
and the IBC Code

SECTION 15: Regulatory information

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

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 05/04/2018
Revision 6
Supersedes date 03/05/2016

Hazard statements in full H302 Harmful if swallowed.
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.
H411 Toxic to aquatic life with long lasting effects.
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.