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

1.1. Product identifier
Product name: PHILLYBOND 6 HARDENER.
Product number: Y0044

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: Acute Tox. 4 - H302 Acute Tox. 4 - H332 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Muta. 2 - H341
Environmental hazards: Not Classified

2.2. Label elements
Pictogram
Signal word: Danger
Hazard statements:
- H302+H332 Harmful if swallowed or if inhaled.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H341 Suspected of causing genetic defects.
PHILLYBOND 6 HARDENER.

Precautionary statements
P261 Avoid breathing vapour/spray.
P270 Do not eat, drink or smoke when using this product.
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.
P308+P313 IF exposed or concerned: Get medical advice/attention.

Supplementary precautionary statements
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe vapour/spray.
P264 Wash contaminated skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
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).
P333+P331 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
PHENOL, TRIETHYLENETETRAMINE

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>PHENOL</th>
<th>5-10%</th>
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</thead>
<tbody>
<tr>
<td>CAS number: 108-95-2</td>
<td>EC number: 203-632-7</td>
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</table>

Classification
Acute Tox. 3 - H301
Acute Tox. 3 - H311
Acute Tox. 3 - H331
Skin Corr. 1B - H314
Eye Dam. 1 - H318
Muta. 2 - H341
STOT RE 2 - H373
PHILLYBOND 6 HARDENER.

<table>
<thead>
<tr>
<th>TRIETHYLENETETRAMINE</th>
<th>5-10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 112-24-3</td>
<td></td>
</tr>
<tr>
<td>EC number: 203-950-6</td>
<td></td>
</tr>
<tr>
<td>REACH registration number: 01-2119487919-13-0000</td>
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</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>CARBON BLACK</th>
<th>&lt;1%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 1333-86-4</td>
<td></td>
</tr>
</tbody>
</table>

**Classification**
Not Classified

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**
Avoid contact with skin and eyes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**Inhalation**
Move affected person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention if any discomfort continues.

**Ingestion**
Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Give plenty of water to drink. Get medical attention.

**Skin contact**
Remove affected person from source of contamination. Wash skin thoroughly 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 and get medical attention. Get medical attention if irritation persists after washing.

**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 foam, carbon dioxide or dry powder.

**5.2. Special hazards arising from the substance or mixture**

**Hazardous combustion products**
Does not decompose when used and stored as recommended.

**5.3. Advice for firefighters**
PHILLYBOND 6 HARDENER.

Protective actions during firefighting
Cool containers exposed to flames with water until well after the fire is out.

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. Wear protective clothing as described in Section 8 of this safety data sheet. Use suitable respiratory protection if ventilation is inadequate. Avoid 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 non-combustible, absorbent material. 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
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
Provide adequate ventilation. Avoid contact with skin and eyes. Use only in well-ventilated areas. Keep away from heat, sparks and open flame. Open drum carefully as content may be under pressure. Do not use in confined spaces without adequate ventilation and/or respirator. Do not eat, drink or smoke when using the product. Good personal hygiene procedures should be implemented.

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. 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

Occupational exposure limits

PHENOL
Long-term exposure limit (8-hour TWA): WEL 2 ppm(Sk)
Short-term exposure limit (15-minute): WEL

CARBON BLACK
Long-term exposure limit (8-hour TWA): 3.5 mg/m³
WEL = Workplace Exposure Limit

Ingredient comments
WEL = Workplace Exposure Limits
PHILLYBOND 6 HARDENER.

TRIETHYLENETETRAMINE (CAS: 112-24-3)

DNEL
Workers - Inhalation; Long term systemic effects: 1 mg/m³
Workers - Inhalation; Short term systemic effects: 5380 mg/m³
Workers - Dermal; Long term systemic effects: 0.57 mg/kg/day

8.2. Exposure controls

Protective equipment
Appropriate engineering controls
Provide adequate general and local exhaust ventilation.

Eye/face protection
The following protection should be worn: Chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection
Wear protective gloves made of the following material: Rubber or plastic. 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.

Other skin and body protection
Wear chemical protective suit.

Hygiene measures
Provide eyewash station and safety shower. Keep away from food, drink and animal feeding stuffs. 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. Do not eat, drink or smoke when using the product.

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

Appearance
Paste.

Colour
Black.

Odour
Ammonia.

pH
pH (concentrated solution): alkaline @ 20 °C

Melting point
Liquid°C

Initial boiling point and range
>176°C @

Flash point
136°C

Relative density
1.72 - 1.07 @ @ 20 °C°C

9.2. Other information

Other information
Not available.

SECTION 10: Stability and reactivity
10.1. Reactivity
Reactivity Acids. Strong oxidising agents.

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. Avoid excessive heat for prolonged periods of time. Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials
Materials to avoid Avoid contact with the following materials: Acids. Oxidising agents.

10.6. Hazardous decomposition products
Hazardous decomposition products Fire or high temperatures create: Nitrous gases (NOx). Vapours/gases/fumes of: Ammonia or amines.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity - oral
ATE oral (mg/kg) 1,111.11

Acute toxicity - dermal
ATE dermal (mg/kg) 2,619.05

Acute toxicity - inhalation
ATE inhalation (gases ppm) 7,777.78
ATE inhalation (vapours mg/l) 33.33
ATE inhalation (dusts/mists mg/l) 5.56

Inhalation Vapours may irritate throat/respiratory system. Symptoms following overexposure may include the following: Coughing. Gas or vapour in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following: Headache. Fatigue. Nausea, vomiting. Repeated exposure may cause chronic upper respiratory irritation. May cause an asthma-like shortness of breath.

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

Skin contact Severe skin irritation. May cause sensitisation by skin contact. Repeated exposure may cause skin dryness or cracking.

Eye contact May cause severe eye irritation.

Acute and chronic health hazards Possible risk of irreversible effects.

Route of entry Skin absorption Inhalation Ingestion.

SECTION 12: Ecological Information
PHILLYBOND 6 HARDENER.

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
Phenol: Biological degradability % : 99.5 %.

12.3. Bioaccumulative potential
Bioaccumulative potential
No data available on bioaccumulation.

12.4. Mobility in soil
Mobility
Avoid the spillage or runoff entering drains, sewers or watercourses.

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
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.

Waste class
08 04 99

SECTION 14: Transport information

General
No other information known.

14.1. UN number
UN No. (ADR/RID) 2922
UN No. (IMDG) 2922
UN No. (ICAO) 2922

14.2. UN proper shipping name
Proper shipping name (ADR/RID) CORROSIVE LIQUID, TOXIC, N.O.S. (PHENOL, TRIETHYLENETETRAMINE)
Proper shipping name (IMDG) CORROSIVE LIQUID, TOXIC, N.O.S. (PHENOL, TRIETHYLENETETRAMINE)
Proper shipping name (ICAO) CORROSIVE LIQUID, TOXIC, N.O.S. (PHENOL, TRIETHYLENETETRAMINE)

14.3. Transport hazard class(es)
ADR/RID class 8
ADR/RID subsidiary risk 6.1
ADR/RID label 8 & 6.1
PHILLYBOND 6 HARDENER.

IMDG class 8
IMDG subsidiary risk 6.1
ICAO class/division 8
ICAO subsidiary risk 6.1

Transport labels

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
Hazard Identification Number (ADR/RID) 86

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

SECTION 15: Regulatory information

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

15.2. Chemical safety assessment
No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision date 06/04/2018
Revision 9
Supersedes date 27/09/2017
PHILLYBOND 6 HARDENER.

Hazard statements in full

H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
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.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H341 Suspected of causing genetic defects.
H373 May cause damage to organs through prolonged or repeated exposure.
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.