SAFETY DATA SHEET
PHILLYBOND ORANGE SEALANT HARDENER

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

1.1. Product identifier
Product name PHILLYBOND ORANGE SEALANT HARDENER
Product number 3280U

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 - H312 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Repr. 2 - H361fd STOT RE 2 - H373
Environmental hazards Aquatic Chronic 2 - H411

2.2. Label elements
Pictogram

Signal word Danger
PHILLYBOND ORANGE SEALANT HARDENER

Hazard statements
H302+H312 Harmful if swallowed or in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.

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

Contains
FORMALDEHYDE, POLYMER WITH BENZENE-AMINE, HYDROGENATED, 4-NONYLPHENOL, Branched, BENZYL ALCOHOL, 4-TERT.BUTYL PHENOL, TRIMETHYLHEXAMETHYLENEDIAMINE, m-XYLYLENEDIAMINE

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.
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+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
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.
P312 Call a POISON CENTER/ doctor if you feel unwell.
P314 Get medical advice/ attention 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.
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
# PHILLYBOND ORANGE SEALANT HARDENER

<table>
<thead>
<tr>
<th>Compound</th>
<th>Percentage</th>
<th>CAS Number</th>
<th>EC Number</th>
<th>M Factor (Acute)</th>
<th>M Factor (Chronic)</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>FORMALDEHYDE, POLYMER WITH BENZENE-AMINE, HYDROGENATED</td>
<td>10-30%</td>
<td>135108-88-2</td>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 4 - H302, Skin Corr. 1C - H314, Skin Sens. 1 - H317, STOT RE 2 - H373, Aquatic Chronic 3 - H412</td>
</tr>
<tr>
<td>4-NONYLPHENOL, Branched</td>
<td>10-30%</td>
<td>84852-15-3</td>
<td>284-325-5</td>
<td>1</td>
<td>1</td>
<td>Acute Tox. 4 - H302, Skin Corr. 1B - H314, Eye Dam. 1 - H318, Rep. 2 - H361fd, Aquatic Acute 1 - H400, Aquatic Chronic 1 - H410</td>
</tr>
<tr>
<td>BENZYL ALCOHOL</td>
<td>5-10%</td>
<td>100-51-6</td>
<td>202-859-9</td>
<td></td>
<td></td>
<td>Acute Tox. 4 - H302, Acute Tox. 4 - H332</td>
</tr>
<tr>
<td>4-TERT.BUTYL PHENOL</td>
<td>5-10%</td>
<td>98-54-4</td>
<td>202-679-0</td>
<td></td>
<td>1</td>
<td>Skin Irrit. 2 - H315, Eye Dam. 1 - H318, Rep. 2 - H361f, Aquatic Chronic 1 - H410</td>
</tr>
<tr>
<td>TRIMETHYLHEXAMETHYLENEDIAMINE</td>
<td>1-5%</td>
<td>25620-58-0</td>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 4 - H302, Skin Corr. 1B - H314, Skin Sens. 1 - H317, Aquatic Chronic 3 - H412</td>
</tr>
</tbody>
</table>
PHILLYBOND ORANGE SEALANT HARDENER

<table>
<thead>
<tr>
<th>m-XYLYLENEDIAMINE</th>
<th>1-5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 1477-55-0</td>
<td>EC number: 216-032-5</td>
</tr>
</tbody>
</table>

**Classification**
- Acute Tox. 4 - H302
- Acute Tox. 4 - H332
- Skin Corr. 1A - 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**

**General information**
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. Avoid vomiting and stomach flushing because of the risk of aspiration. Get medical attention.

**Ingestion**
Do not induce vomiting. DO NOT induce vomiting. Get medical attention immediately. Get medical attention immediately.

**Skin contact**
Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention immediately.

**Eye contact**
Rinse immediately with plenty of water. Remove any contact lenses and open eyelids widely apart. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing. Show this Safety Data Sheet to the medical personnel.

**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 alcohol-resistant foam, carbon dioxide or dry powder.

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

**Specific hazards**
Carbon monoxide (CO). Organic nitro compounds. Delayed, often serious, breathing problems.

**5.3. Advice for firefighters**

**Protective actions during firefighting**
In confined or poorly-ventilated spaces, a supplied-air respirator must be worn. 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.
PHILLYBOND ORANGE SEALANT HARDENER

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions
Do not touch or walk into spilled material. Eliminate all sources of ignition. Provide adequate ventilation. Stop leak if possible without any risk.

6.2. Environmental precautions

Environmental precautions
Avoid or minimise the creation of any environmental contamination. 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
Avoid inhalation of vapours/spray and 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. No smoking, sparks, flames or other sources of ignition near spillage. Wash at the end of each work shift and before eating, smoking and using the toilet.

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. Keep away from heat, sparks and open flame. 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
Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

Appropriate engineering controls
Wear tight-fitting, chemical splash goggles or face shield. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Eye/face protection
Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. 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.

Hand protection
PHILLYBOND ORANGE SEALANT HARDENER

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

Hygiene measures
Provide eyewash station and safety shower.

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>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid.</td>
<td></td>
</tr>
<tr>
<td>Colour</td>
<td>Amber.</td>
<td></td>
</tr>
<tr>
<td>Odour</td>
<td>Ammonia.</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>pH (concentrated solution): alkaline</td>
<td></td>
</tr>
<tr>
<td>Melting point</td>
<td>n/d°C</td>
<td></td>
</tr>
<tr>
<td>Initial boiling point and range</td>
<td>nd°C @</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt;93°C</td>
<td></td>
</tr>
<tr>
<td>Vapour density</td>
<td>&gt;1</td>
<td></td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Slightly soluble in water.</td>
<td></td>
</tr>
</tbody>
</table>

9.2. 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 Will not polymerise.

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

10.5. Incompatible materials
Materials to avoid Strong oxidising agents. Avoid contact with acids.

10.6. Hazardous decomposition products
Hazardous decomposition products Ammonia. Hydrogen cyanide (HCN). Unidentified organic compounds (nitriles, cyanic acid, isocyanates, cyanogens, amides, carbamates)

SECTION 11: Toxicological information

11.1. Information on toxicological effects
PHILLYBOND ORANGE SEALANT HARDENER

Acute toxicity - oral
ATE oral (mg/kg) 9,009.0

Acute toxicity - dermal
ATE dermal (mg/kg) 1,100.0

Acute toxicity - inhalation
ATE inhalation (gases ppm) 3,913,043.0
ATE inhalation (vapours mg/l) 9,565.0
ATE Inhalation (dusts/mists mg/l) 1,304.0

General information
Corrosive

Inhalation
Vapours are corrosive. Symptoms following overexposure may include the following: Shortness of breath. Lung oedema. Development of symptoms may be delayed for 24 to 48 hours. May cause sensitisation by inhalation.

Ingestion
Corrosive. Small amounts may cause serious damage. May cause chemical burns in mouth, oesophagus and stomach.

Skin contact
Corrosive. Small amounts may cause serious damage. Severe skin irritation. May cause sensitisation by skin contact.

Eye contact
This product is strongly corrosive. Immediate first aid is imperative. Vapour or spray may cause eye damage, impaired sight or blindness.

Route of entry
Skin and/or eye contact Skin absorption Inhalation

SECTION 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.

12.1. Toxicity
Toxicity Very toxic to aquatic organisms.

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 Avoid or minimise the creation of any environmental contamination.

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
PHILLYBOND ORANGE SEALANT HARDENER

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) 2735
UN No. (IMDG) 2735
UN No. (ICAO) 2735

14.2. UN proper shipping name
Proper shipping name (ADR/RID)
AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S (4-NONYLPHENOL, Branched, TRIMETHYLHEXAMETHYLENEDIAMINE)

Proper shipping name (IMDG)
AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S (4-NONYLPHENOL, Branched, TRIMETHYLHEXAMETHYLENEDIAMINE)

Proper shipping name (ICAO)
AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S (4-NONYLPHENOL, Branched, TRIMETHYLHEXAMETHYLENEDIAMINE)

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

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
PHILLYBOND ORANGE SEALANT HARDENER

Emergency Action Code 2X
Hazard Identification Number (ADR/RID) 80

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 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.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H332 Harmful if inhaled.
H361f Suspected of damaging fertility.
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
H373 May cause damage to organs (Kidneys) through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
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.