SAFETY DATA SHEET
KORROBOND 65 COMPONENT B

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

1.1. Product identifier
Product name KORROBOND 65 COMPONENT B
Product number KORRO65B

1.2. Relevant identified uses of the substance or mixture and uses advised against
Identified uses Two-component, epoxy-based adhesive.

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
customerservice.shannon@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 Asp. Tox. 1 - H304
Environmental hazards Aquatic Chronic 3 - H412

Human health Corrosive to skin and eyes.

2.2. Label elements
Pictogram

Signal word Danger
Hazard statements H302+H312 Harmful if swallowed or in contact with skin.
H304 May be fatal if swallowed and enters airways.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.
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Precautionary statements

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing.
Rinse skin with water or 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.
P501 Dispose of contents/ container in accordance with national regulations.

Contains

2-PIPERAZIN-1-YLETHYLAMINE, DIISOPROPYNAPHTHALENE ISOMERS, TRIETHYLENETETRAMINE

Supplementary precautionary statements

P260 Do not breathe vapour/ spray.
P261 Avoid breathing vapour/ spray.
P264 Wash contaminated skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
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 CENTRE/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.

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>Substance</th>
<th>Percentage</th>
<th>CAS number</th>
<th>EC number</th>
<th>REACH registration number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-PIPERAZIN-1-YLETHYLAMINE</td>
<td>60-100%</td>
<td>140-31-8</td>
<td>205-411-0</td>
<td>01-219471486-30-0003</td>
</tr>
</tbody>
</table>

Classification

Acute Tox. 4 - H302
Acute Tox. 4 - H312
Skin Corr. 1B - H314
Eye Dam. 1 - H318
Skin Sens. 1 - H317
Aquatic Chronic 3 - H412

<table>
<thead>
<tr>
<th>Substance</th>
<th>Percentage</th>
<th>CAS number</th>
<th>EC number</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIISOPROPYNAPHTHALENE ISOMERS</td>
<td>10-30%</td>
<td>38640-62-9</td>
<td>254-052-6</td>
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</tbody>
</table>

Classification

Asp. Tox. 1 - H304
Aquatic Chronic 4 - H413
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<table>
<thead>
<tr>
<th>TRIETHYLENETETRAMINE</th>
<th>10-30%</th>
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</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>
<td></td>
</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 inhalation of vapours and 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. Get medical attention if any discomfort continues.

**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 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 the following media: Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

5.2. Special hazards arising from the substance or mixture

**Specific hazards**
Avoid breathing fire gases or vapours.

5.3. Advice for firefighters

**Protective actions during firefighting**
Keep up-wind to avoid fumes. Do not use water jet as an extinguisher, as this will spread the fire. Control run-off water by containing and keeping it out of sewers and watercourses.
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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
Warn everybody of potential hazards and evacuate if necessary. Provide adequate ventilation. Wear protective clothing as described in Section 8 of this safety data sheet. No smoking, sparks, flames or other sources of ignition near spillage. Avoid contact with skin and eyes. Do not breathe vapour/spray.

6.2. 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.

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
Use only in well-ventilated areas. Provide adequate ventilation. Avoid spilling. Avoid contact with skin and eyes. Avoid inhalation of vapours. Keep away from heat, sparks and open flame. Avoid eating, drinking and smoking when using the product. Do not use in confined spaces without adequate ventilation and/or respirator. 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
CARBON BLACK
Long-term exposure limit (8-hour TWA): 3.5 mg/m³

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

2-Piperazin-1-ylethylamine (CAS: 140-31-8)
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**DNEL**

- **Workers - Inhalation; Long term systemic effects:** 3.6 mg/m³
- **Workers - Inhalation; Short term systemic effects:** 21.4 mg/m³
- **Workers - Dermal; Long term systemic effects:** 3.3 mg/kg/day
- **Workers - Dermal; Long term local effects:** 0.006 mg/cm²

**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**

- Provide adequate general and local exhaust 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 European Standard EN166.

**Hand protection**

Wear protective gloves made of the following material: Rubber or plastic. The selected gloves should have a breakthrough time of at least 8 hours. To protect hands from chemicals, gloves should comply with European Standard EN374.

**Other skin and body protection**

Wear apron or protective clothing in case of contact.

**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. Change work clothing daily before leaving workplace.

**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. Wear a respirator fitted with the following cartridge: Combination filter, type A2/P3. Check that the respirator fits tightly and the filter is changed regularly. 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:** Liquid.
- **Colour:** Black.
- **Odour:** Ammonia.
- **pH:** pH (concentrated solution): 12 @ 20 ºC
- **Melting point:** -18ºC
- **Initial boiling point and range:** >200ºC
KORROBOND 65 COMPONENT B

Flash point >100°C
Vapour pressure 0.07 mmHg @ °C
Relative density 0.97 @ 20 °C
Solubility(ies) Insoluble in water.
Auto-ignition temperature >150°C

9.2. Other information
Other information Not available.

SECTION 10: Stability and reactivity

10.1. Reactivity
Reactivity 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.

10.5. Incompatible materials
Materials to avoid Avoid contact with oxidising agents. Nitrous acid and other nitrosating agents.

10.6. Hazardous decomposition products
Hazardous decomposition products Fire or high temperatures create: Nitrous gases (NOx). Oxides of the following substances: Carbon monoxide (CO). Carbon dioxide (CO2). Vapours/gases/fumes of: Ammonia or amines.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity - oral
ATE oral (mg/kg) 753.81

Acute toxicity - dermal
ATE dermal (mg/kg) 1,383.13

Ingestion Harmful if swallowed. Corrosive. Small amounts may cause serious damage.
Skin contact Causes burns. Corrosive. Prolonged contact causes serious tissue damage. Harmful in contact with skin. May cause sensitisation by skin contact.
Eye contact Causes burns. A single exposure may cause the following adverse effects: Corneal damage. Risk of serious damage to eyes.
Acute and chronic health hazards This product is corrosive. This product is corrosive. This product may cause skin and eye irritation. Prolonged contact may cause burns.
Route of exposure Inhalation Skin absorption Ingestion.
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Target organs
Liver Kidneys Respiratory system, lungs Central nervous system

SECTION 12: Ecological Information

Ecotoxicity
Avoid release to the environment. The product contains a substance which is harmful to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

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
Avoid or minimise the creation of any environmental contamination. Do not discharge into drains or watercourses or onto the ground.

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 09*

SECTION 14: Transport information

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 (2-PIPERAZIN-1-YLETHYLAMINE, TRIETHYLENETETRAMINE)
Proper shipping name (IMDG) AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S (2-PIPERAZIN-1-YLETHYLAMINE, TRIETHYLENETETRAMINE)
KORROBOND 65 COMPONENT B

Proper shipping name (ICAO)  AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S (2-PIPERAZIN-1-YLETHYLAMINE, TRIETHYLENETETRAMINE)

Proper shipping name (ADN)  AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S (2-PIPERAZIN-1-YLETHYLAMINE, TRIETHYLENETETRAMINE)

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  II
IMDG packing group  II
ICAO packing group  II

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

14.6. Special precautions for user
IMDG Code segregation group  18. Alkalis
EmS  F-A, S-B
Emergency Action Code  2X
Hazard Identification Number (ADR/RID)  80
Tunnel restriction code  (E)

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 05/04/2018
Revision 24
Supersedes date 11/08/2017

Hazard statements in full
- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- 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.
- H413 May cause long lasting harmful effects to aquatic life.

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.