SAFETY DATA SHEET
ULTRATHANE 5410B NEUTRAL

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

1.1. Product identifier

Product name  ULTRATHANE 5410B NEUTRAL
Product number  05410B50A

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

Identified uses  coating

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  Eye Irrit. 2 - H319 STOT RE 2 - H373
Environmental hazards  Aquatic Chronic 2 - H411

2.2. Label elements

Pictogram

Signal word  Warning

Hazard statements  H319 Causes serious eye irritation.
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.
ULTRATHANE 5410B NEUTRAL

Precautionary statements

P260 Do not breathe vapour/ spray.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314 Get medical advice/ attention if you feel unwell.
P337+P313 If eye irritation persists: Get medical advice/ attention.

Contains

DIETHYLMETHYLBENZENEDIAMINE

Supplementary precautionary statements

P264 Wash contaminated skin thoroughly after handling.
P391 Collect spillage.
P501 Dispose of contents/ container in accordance with national regulations.

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

<table>
<thead>
<tr>
<th>DIETHYLMETHYLBENZENEDIAMINE</th>
<th>10-30%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 68479-98-1</td>
<td>EC number: 270-877-4</td>
</tr>
<tr>
<td>M factor (Acute) = 1</td>
<td>M factor (Chronic) = 1</td>
</tr>
</tbody>
</table>

Classification

Acute Tox. 4 - H302
Acute Tox. 4 - H312
Eye Irrit. 2 - H319
STOT RE 2 - H373
Aquatic Acute 1 - H400
Aquatic Chronic 1 - H410

<table>
<thead>
<tr>
<th>TITANIUM DIOXIDE</th>
<th>1-5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 13463-67-7</td>
<td>EC number: 236-675-5</td>
</tr>
<tr>
<td>REACH registration number: 01-2119489379-17-0000</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

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. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.

Ingestion

Do not induce vomiting. Give plenty of water to drink. Never give anything by mouth to an unconscious person. Do not induce vomiting. Get medical attention. Show this Safety Data Sheet to the medical personnel.

Skin contact

Remove affected person from source of contamination. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.
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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.
Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture
Specific hazards
Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m3.

5.3. Advice for firefighters
Protective actions during firefighting
Avoid breathing fire gases or vapours. Keep up-wind to avoid fumes. Control run-off water by containing and keeping it out of sewers and watercourses.
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. Avoid contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet. Use suitable respiratory protection if ventilation is inadequate.

6.2. Environmental precautions
Environmental precautions
Avoid or minimise the creation of any environmental contamination. Do not discharge into drains or watercourses or onto the ground. Collect and dispose of spillage as indicated in Section 13. 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 sand or other inert absorbent. Absorb spillage with non-combustible, absorbent material. Flush contaminated area with plenty of water. Contain spillage with sand, earth or other suitable non-combustible material.

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
ULTRATHANE 5410B NEUTRAL

Usage precautions
Avoid contact with skin and eyes. Keep away from sources of ignition - No smoking. Provide adequate ventilation. Avoid inhalation of vapours. Use approved respirator if air contamination is above an acceptable level. 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.

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
TITANIUM DIOXIDE
Long-term exposure limit (8-hour TWA): 10 mg/m³ total dust

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. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection
It is recommended that gloves are made of the following material: Nitrile rubber. Polyvinyl alcohol (PVA). Viton rubber (fluoro rubber). 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. 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.

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
**ULTRATHANE 5410B NEUTRAL**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>Liquid</td>
</tr>
<tr>
<td><strong>Colour</strong></td>
<td>White/off-white</td>
</tr>
<tr>
<td><strong>Odour</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Initial boiling point and range</strong></td>
<td>260-312.78°C @</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>135°C COC (Cleveland open cup)</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>&lt;1 (ethanol = 1)</td>
</tr>
<tr>
<td><strong>Upper/lower flammability or explosive limits</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Vapour pressure</strong></td>
<td>1.86 kPa @ °C</td>
</tr>
<tr>
<td><strong>Vapour density</strong></td>
<td>&gt;1</td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
<td>1.04 @ 25 ºC</td>
</tr>
<tr>
<td><strong>Solubility(ies)</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature</strong></td>
<td>Not available</td>
</tr>
</tbody>
</table>

**9.2. Other information**

| Volatility                     | 0.3                                        |
| **Volatile organic compound**  | This product contains a maximum VOC content of 2.1 g/litre. |

**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. Avoid exposure to high temperatures or direct sunlight. Strong oxidising agents.

**10.5. Incompatible materials**

Materials to avoid: Avoid contact with oxidising agents.

**10.6. Hazardous decomposition products**

Hazardous decomposition products: 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) | 2,810.57 |

Acute toxicity - dermal
ULTRATHANE 5410B NEUTRAL

ATE dermal (mg/kg) 6,183.25

Inhalation Vapours may irritate throat/respiratory system. Symptoms following overexposure may include the following: Headache. Dizziness. Drowsiness.

Ingestion Harmful if swallowed. Gastrointestinal symptoms, including upset stomach.

Skin contact Irritating to skin. Prolonged and frequent contact may cause redness and irritation.

Eye contact May cause severe eye irritation. Visual disturbances, including blurred vision.

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

SECTION 12: Ecological Information

Ecotoxicity Toxic to aquatic organisms, 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. 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 99

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 3082

UN No. (IMDG) 3082

UN No. (ICAO) 3082

14.2. UN proper shipping name
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Proper shipping name (ADR/RID)  ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIMETHYLBENZENEDIAMINE)
Proper shipping name (IMDG)  ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIMETHYLBENZENEDIAMINE)
Proper shipping name (ICAO)  ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIMETHYLBENZENEDIAMINE)
Proper shipping name (ADN)  ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIMETHYLBENZENEDIAMINE)

14.3. Transport hazard class(es)
ADR/RID class  9
ADR/RID label  9
IMDG class  9
ICAO class/division  9

Transport labels

14.4. Packing group
IMDG packing group  III
ICAO packing group  III

14.5. Environmental hazards
Environmentally hazardous substance/marine pollutant

14.6. Special precautions for user
EmS  F-A, S-F
Emergency Action Code  •3Z
Hazard Identification Number (ADR/RID)  90
Tunnel restriction code  (E)

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

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
ULTRATHANE 5410B NEUTRAL

Revision date: 05/04/2018
Revision: 16
Supersedes date: 29/04/2016

Hazard statements in full:
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H319 Causes serious eye irritation.
H373 May cause damage to organs 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.

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.