SAFETY DATA SHEET
ULTRATHANE 5410B WHITE

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

1.1. Product identifier
Product name: ULTRATHANE 5410B WHITE

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 WHITE

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></td>
</tr>
<tr>
<td>EC number: 270-877-4</td>
<td></td>
</tr>
<tr>
<td>M factor (Acute) = 1</td>
<td>M factor (Chronic) = 1</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>ISO-BUTANOL</th>
<th>&lt;1%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 78-83-1</td>
<td></td>
</tr>
<tr>
<td>EC number: 201-148-0</td>
<td></td>
</tr>
</tbody>
</table>

Classification
Not Classified

| Flam. Liq. 3 - H226 |
| Skin Irrit. 2 - H315 |
| Eye Dam. 1 - H318 |
| STOT SE 3 - H335, H336 |

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).
ULTRATHANE 5410B WHITE

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.

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.
ULTRATHANE 5410B WHITE

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. 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

ISO-BUTANOL

Long-term exposure limit (8-hour TWA): WEL 50 ppm 154 mg/m³

Short-term exposure limit (15-minute): WEL 75 ppm 231 mg/m³

WEL = Workplace Exposure Limit

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.
ULTRATHANE 5410B WHITE

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

9.2. Other information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>0.3</td>
</tr>
<tr>
<td>Volatile organic compound</td>
<td>This product contains a maximum VOC content of 2.1 g/litre.</td>
</tr>
</tbody>
</table>

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
ULTRATHANE 5410B WHITE

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
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
ULTRATHANE 5410B WHITE

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
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)

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

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
ULTRATHANE 5410B WHITE

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

**EU legislation**

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

<table>
<thead>
<tr>
<th>SECTION 16: Other information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision date</td>
</tr>
<tr>
<td>Revision</td>
</tr>
<tr>
<td>Supersedes date</td>
</tr>
<tr>
<td>SDS number</td>
</tr>
<tr>
<td>Hazard statements in full</td>
</tr>
<tr>
<td>H226 Flammable liquid and vapour.</td>
</tr>
<tr>
<td>H302 Harmful if swallowed.</td>
</tr>
<tr>
<td>H312 Harmful in contact with skin.</td>
</tr>
<tr>
<td>H315 Causes skin irritation.</td>
</tr>
<tr>
<td>H318 Causes serious eye damage.</td>
</tr>
<tr>
<td>H319 Causes serious eye irritation.</td>
</tr>
<tr>
<td>H335 May cause respiratory irritation.</td>
</tr>
<tr>
<td>H336 May cause drowsiness or dizziness.</td>
</tr>
<tr>
<td>H373 May cause damage to organs through prolonged or repeated exposure.</td>
</tr>
<tr>
<td>H400 Very toxic to aquatic life.</td>
</tr>
<tr>
<td>H410 Very toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>H411 Toxic to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>

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.