SAFETY DATA SHEET
ULTRATHANE 5410B BROWN

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

1.1. Product identifier
Product name ULTRATHANE 5410B BROWN

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 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Elicitation - EUH208 STOT RE 2 - H373
Environmental hazards Aquatic Chronic 2 - H411

Human health
Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates. Persons with impaired lung function should not handle this product.

2.2. Label elements
Pictogram

Signal word Warning
ULTRATHANE 5410B BROWN

Hazard statements
EUH208 Contains DIBUTYL Tin DILAURATE. May produce an allergic reaction.
H315 Causes skin irritation.
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.
H302+H312 Harmful if swallowed or in contact with skin.

Precautionary statements
P260 Do not breathe vapour/ spray.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P302+P352 IF ON SKIN: Wash with plenty of water.
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.
P332+P313 If skin irritation occurs: Get medical advice/ attention.

Contains
DIETHYLMETHYLBENZENEDIAMINE

Supplementary precautionary statements
P264 Wash contaminated skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P312 Call a POISON CENTER/ doctor if you feel unwell.
P321 Specific treatment (see medical advice on this label).
P330 Rinse mouth.
P337+P313 If eye irritation persists: Get medical advice/ attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.
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

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS number</th>
<th>EC number</th>
<th>M factor (Acute)</th>
<th>M factor (Chronic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIETHYLMETHYLBENZENEDIAMINE</td>
<td>68479-98-1</td>
<td>270-877-4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>N,N,N',N'-TETRAKIS(2-HYDROXYLPROPYL)ETHYLENEDIAMINE</td>
<td>102-60-3</td>
<td></td>
<td>10-30%</td>
<td>10-30%</td>
</tr>
</tbody>
</table>

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

N,N,N',N'-TETRAKIS(2-HYDROXYLPROPYL)ETHYLENEDIAMINE
Eye Irrit. 2 - H319
# ULTRATHANE 5410B BROWN

<table>
<thead>
<tr>
<th>Material</th>
<th>Concentration</th>
<th>CAS number</th>
<th>EC number</th>
<th>Classification</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLYOXYPROPYLENEDIAMINE</td>
<td>1-5%</td>
<td>9046-10-0</td>
<td></td>
<td>Skin Corr. 1B - H314</td>
<td></td>
</tr>
<tr>
<td>CARBON BLACK</td>
<td>&lt;1%</td>
<td>1333-86-4</td>
<td></td>
<td>Not Classified</td>
<td></td>
</tr>
<tr>
<td>ISO-BUTANOL</td>
<td>&lt;1%</td>
<td>78-83-1</td>
<td>201-148-0</td>
<td>Flam. Liq. 3 - H226, Skin Irrit. 2 - H315, Eye Dam. 1 - H318, STOT SE 3 - H335, H336</td>
<td></td>
</tr>
</tbody>
</table>

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. 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.
ULTRATHANE 5410B BROWN

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
Specific hazards
In case of fire and/or explosion do not breathe fumes. Toxic gases or vapours.

5.3. Advice for firefighters
Protective actions during firefighting
Avoid breathing fire gases or vapours. Keep up-wind to avoid fumes. 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
No smoking, sparks, flames or other sources of ignition near spillage. Avoid contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet. Provide adequate ventilation. Keep upwind.

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. 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. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Flush contaminated area with plenty of water.

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
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. Avoid inhalation of vapours/spray and contact with skin and eyes. Avoid release to the environment.
ULTRATHANE 5410B BROWN

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. Protect from freezing and direct sunlight. 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

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

Ingredient comments
WEL = Workplace Exposure Limits

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. Wear a respirator fitted with the following cartridge: Gas filter, type K. 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 BROWN

Appearance
Liquid.

Colour
Black. or Brown.

Odour
Strong.

pH
Not available.

Melting point
Not available.

Initial boiling point and range
175°C @

Flash point
°C Not available.

Evaporation rate
Not available. «59» «184» «109020»

Upper/lower flammability or explosive limits
Not available.

Vapour pressure
0.2 mm Hg @ °C

Vapour density
Not available.

Relative density
0.98 @ 25 °C

Solubility(ies)
Insoluble in water.

Partition coefficient
Not available.

Decomposition Temperature
Not available.

Viscosity
Not available.

9.2. Other information
Volatile organic compound
This product contains a maximum VOC content of 29.16%.

SECTION 10: Stability and reactivity

10.1. Reactivity
Reactivity
Stable at normal ambient temperatures and when used as recommended. The following materials may react violently with the product: 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
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
ULTRATHANE 5410B BROWN

11.1. Information on toxicological effects

Acute toxicity - oral
ATE oral (mg/kg) 500.0

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

General information
Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.

Inhalation
Vapours may irritate throat/respiratory system. Symptoms following overexposure may include the following: Coughing.

Ingestion
Harmful: danger of serious damage to health by prolonged exposure if swallowed. May cause discomfort if swallowed. Gastrointestinal symptoms, including upset stomach.

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

Eye contact
Irritating to eyes.

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

SECTION 12: Ecological Information

Ecotoxicity
Toxic to aquatic organisms. Dangerous for the environment. 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.

Partition coefficient
Not available.

12.4. Mobility in soil
Mobility
Avoid or minimise the creation of any environmental contamination. 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.
ULTRATHANE 5410B BROWN

Waste class 08 04 99

SECTION 14: Transport information

General No other information known.

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. (DIETHYLMETHYLBENZENEDIAMINE)
Proper shipping name (IMDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIETHYLMETHYLBENZENEDIAMINE)
Proper shipping name (ICAO) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIETHYLMETHYLBENZENEDIAMINE)

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
ADR/RID packing group III
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
ULTRATHANE 5410B BROWN

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

EU legislation


15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision date 05/04/2018
Revision 20
Supersedes date 29/04/2016
SDS number 20659

Hazard statements in full

EUH208 Contains DIBUTYL Tin DILAURATE. May produce an allergic reaction.
H226 Flammable liquid and vapour.
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.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H341 Suspected of causing genetic defects.
H360 May damage fertility or the unborn child.
H370 Causes damage to organs .
H372 Causes damage to organs through prolonged or repeated exposure.
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.