SAFETY DATA SHEET
P-AQUALINE 300, 400, 650

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

1.1. Product identifier
Product name
P-AQUALINE 300, 400, 650

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 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 STOT SE 3 - H335
Environmental hazards
Not Classified

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

2.2. Label elements
Pictogram

Signal word
Danger
P-AQUALINE 300, 400, 650

**Hazard statements**
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H335 May cause respiratory irritation.

**Precautionary statements**
- P261 Avoid breathing vapour/ spray.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P284 [In case of inadequate ventilation] wear respiratory 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.
- P312 Call a POISON CENTER/ doctor if you feel unwell.

**Supplemental label information**
- EUH204 Contains isocyanates. May produce an allergic reaction.

**Contains**
- 4,4'-METHYLENEDI(CYCLOHEXYL ISOCYANATE), DIPHENYL METHANE-4,4'-DI-ISOCYANATE, 4,4'-Methylene diphenyl disocyanate, oligomers

**Supplementary precautionary statements**
- P264 Wash contaminated skin thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P321 Specific treatment (see medical advice on this label).
- P332+P313 If skin irritation occurs: Get medical advice/ attention.
- P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
- P337+P313 If eye irritation persists: Get medical advice/ attention.
- P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.
- P362+P364 Take off contaminated clothing and wash it before reuse.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- 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**

<table>
<thead>
<tr>
<th>4,4'-METHYLENEDI(CYCLOHEXYL ISOCYANATE)</th>
<th>10-30%</th>
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<tr>
<td><strong>CAS number:</strong> 5124-30-1</td>
<td><strong>EC number:</strong> 225-863-2</td>
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**Classification**
- Acute Tox. 3 - H331
- Skin Irrit. 2 - H315
- Eye Irrit. 2 - H319
- Resp. Sens. 1 - H334
- Skin Sens. 1 - H317
- STOT SE 3 - H335
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#### DIPHENYL METHANE-4,4'-DI-ISOCYANATE

<table>
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<tr>
<th>CAS number: 101-68-8</th>
<th>EC number: 202-966-0</th>
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</table>

**Classification**

- Acute Tox. 4 - H332
- Skin Irrit. 2 - H315
- Eye Irrit. 2 - H319
- Resp. Sens. 1 - H334
- Skin Sens. 1 - H317
- Carc. 2 - H351
- STOT SE 3 - H335
- STOT RE 2 - H373

#### 4,4'-Methylenediphenyl diisocyanate, oligomers

<table>
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<th>CAS number: —</th>
<th>EC number: 500-040-3</th>
<th>REACH registration number: 01-2119457013-49-0000</th>
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</thead>
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**Classification**

- Acute Tox. 4 - H332
- Skin Irrit. 2 - H315
- Eye Irrit. 2 - H319
- Resp. Sens. 1 - H334
- Skin Sens. 1 - H317
- Carc. 2 - H351
- STOT SE 3 - H335
- STOT RE 2 - H373

#### tin bis(2-ethylhexanoate)

<table>
<thead>
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<th>CAS number: 301-10-0</th>
<th>EC number: 206-108-6</th>
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</table>

**Classification**

- Eye Dam. 1 - H318
- Skin Sens. 1B - H317
- Repr. 2 - H361
- 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**

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**

Rinse mouth thoroughly with water. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention immediately.

**Skin contact**

Remove contaminated clothing immediately and wash skin 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.

5.2. Special hazards arising from the substance or mixture

Specific hazards

Avoid breathing fire gases or vapours. Cool containers exposed to flames with water until well after the fire is out.

5.3. Advice for firefighters

Protective actions during firefighting

Do not use water, if avoidable.

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. Avoid inhalation of vapours and contact with skin and eyes.

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. Open drum carefully as content may be under pressure. Avoid inhalation of vapours/spray and contact with skin and eyes. Do not use in confined spaces without adequate ventilation and/or respirator. Keep away from heat, sparks and open flame. Do not eat, drink or smoke when using the product. Good personal hygiene procedures should be implemented.

7.2. Conditions for safe storage, including any incompatibilities
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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

4,4'-METHYLENEDI(CYCLOHEXYL ISOCYANATE)
Long-term exposure limit (8-hour TWA): WEL 0.02 mg/m³ (Sen)
Short-term exposure limit (15-minute): WEL 0.07 mg/m³ (Sen)

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE
Long-term exposure limit (8-hour TWA): WEL 0.02 mg/m³ (Sen)
Short-term exposure limit (15-minute): WEL 0.07 mg/m³ (Sen)

tin bis(2-ethyl/hexanoate)
Long-term exposure limit (8-hour TWA): WEL 0.1 mg/m³ (Sk)
Short-term exposure limit (15-minute): WEL 0.2 mg/m³ (Sk)
WEL = Workplace Exposure Limit

Ingredient comments

4,4'-METHYLENEDI(CYCLOHEXYL ISOCYANATE) (CAS: 5124-30-1)
DNEL
Workers - Inhalation; Short term local effects: 0.6 mg/m³
Workers - Inhalation; Long term local effects: 0.3 mg/m³

DIPHENYL METHANE-4,4'-DI-ISOCYANATE (CAS: 101-68-8)
DNEL
Workers - Inhalation; Long term local effects: 0.05 mg/m³
Workers - Inhalation; Short term local effects: 0.1 mg/m³

8.2. Exposure controls

Protective equipment

Appropriate engineering controls
Provide adequate general and local exhaust ventilation.

Eye/face protection
The following protection should be worn: Chemical splash goggles or face shield. 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 (natural, latex). Neoprene. Polyvinyl chloride (PVC). 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.
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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.

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. When spraying, wear a suitable supplied-air respirator. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN136. 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
Viscous liquid.

Colour
Translucent.

Odour
Slight.

Initial boiling point and range
>150°C @

Flash point
> 200°C

Vapour pressure
<10mmHg @ °C

Relative density
1.02 @ 20 °C

Solubility(ies)
Insoluble in water.

Viscosity
6500-9500 mPa s @ 20°C

9.2. Other information
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
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.

10.5. Incompatible materials
Materials to avoid
Avoid contact with the following materials: Acids. Oxidising agents.

10.6. Hazardous decomposition products
P-AQUALINE 300, 400, 650

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 - inhalation**

ATE inhalation (gases ppm) 2,779.21
ATE inhalation (vapours mg/l) 11.91
ATE inhalation (dusts/mists mg/l) 1.99

Inhalation Harmful by inhalation. May cause sensitisation by inhalation.

Skin contact Irritating to skin. May cause sensitisation by skin contact. May cause sensitisation or allergic reactions in sensitive individuals.

Eye contact Irritating to eyes.

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

**SECTION 12: Ecological Information**

**Ecotoxicity** Avoid releasing into the environment.

**12.1. Toxicity**

**Acute toxicity - fish** LC₅₀, 96 hours: 1.2 mg/l, Algae

**Acute toxicity - aquatic invertebrates** EC₅₀, 48 hours: >500 mg/l, Daphnia magna

**12.2. Persistence and degradability**

**Persistence and degradability** Assessment of biological degradability (Closed-Bottle Test) 60 %.

**12.3. Bioaccumulative potential**

**Bioaccumulative potential** No data available on bioaccumulation.

**12.4. Mobility in soil**

**Mobility** Not considered mobile.

**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**
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**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**
The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

**14.1. UN number**
No information required.

**14.2. UN proper shipping name**
No information required.

**14.3. Transport hazard class(es)**

**Transport labels**
No transport warning sign required.

**14.4. Packing group**
No information required.

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

**14.6. Special precautions for user**
No information required.

**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**

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<th>04/04/2018</th>
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<td>Revision</td>
<td>4</td>
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<tr>
<td>Supersedes date</td>
<td>29/04/2016</td>
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</table>
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Hazard statements in full

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.
H361 Suspected of damaging fertility or the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.
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.