

# **ITW** Performance Polymers

## SAFETY DATA SHEET IRATHANE P-155HS RESIN

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

#### 1.1. Product identifier

**Product name** IRATHANE P-155HS RESIN

**UFI** UFI: 4Y00-E0DV-X006-3HHD

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

**Identified uses** Two-component, isocyanate-based sealant.

#### 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. 3 - H331 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Resp. Sens. 1 - H334 Skin Sens. 1  
- H317 STOT SE 3 - H335

**Environmental hazards** Not Classified

#### 2.2. Label elements

##### Hazard pictograms



**Signal word** Danger

**Hazard statements** H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H331 Toxic if inhaled.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H335 May cause respiratory irritation.

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|                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Precautionary statements</b>               | <p>P261 Avoid breathing vapour/ spray.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P284 [In case of inadequate ventilation] wear respiratory protection.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Supplemental label information</b>         | EUH204 Contains isocyanates. May produce an allergic reaction.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Contains</b>                               | 4,4'-METHYLENEDI(CYCLOHEXYL ISOCYANATE)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Supplementary precautionary statements</b> | <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P312 Call a POISON CENTRE/doctor if you feel unwell.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P332+P313 If skin irritation occurs: Get medical advice/ attention.</p> <p>P337+P313 If eye irritation persists: Get medical advice/ attention.</p> <p>P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P403+P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p> |

### 2.3. Other hazards

Contains isocyanates. May produce an allergic reaction.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

|                                                                                                                                                                |                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| <b>4,4'-METHYLENEDI(CYCLOHEXYL ISOCYANATE)</b>                                                                                                                 | <b>30-60%</b>        |
| CAS number: 5124-30-1                                                                                                                                          | EC number: 225-863-2 |
| <b>Classification</b><br>Acute Tox. 3 - H331<br>Skin Irrit. 2 - H315<br>Eye Irrit. 2 - H319<br>Resp. Sens. 1 - H334<br>Skin Sens. 1 - H317<br>STOT SE 3 - H335 |                      |

The full text for all hazard statements is displayed in Section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

|                     |                                                                                                                                                                                                              |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inhalation</b>   | Remove affected person from source of contamination. 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. |
| <b>Ingestion</b>    | Remove affected person from source of contamination. Get medical attention immediately.                                                                                                                      |
| <b>Skin contact</b> | Wash skin thoroughly with soap and water. Continue to rinse for at least 15 minutes. Get medical attention.                                                                                                  |

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**Eye contact** Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Continue to rinse for at least 15 minutes. 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** Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media** Extinguish with carbon dioxide or dry powder.

### 5.2. Special hazards arising from the substance or mixture

**Hazardous combustion products** Reacts with water.

### 5.3. Advice for firefighters

**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** Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation.

### 6.2. Environmental precautions

**Environmental precautions** Avoid or minimise the creation of any environmental contamination.

### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up** Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. 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** Avoid inhalation of vapours and spray/mists. Provide adequate ventilation. 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. Keep away from heat, sparks and open flame. 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

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### 8.1. Control parameters

#### Occupational exposure limits

#### 4,4'-METHYLENEDI(CYCLOHEXYL ISOCYANATE)

Long-term exposure limit (8-hour TWA): WEL 0.02 mg/m<sup>3</sup>(Sen)

Short-term exposure limit (15-minute): WEL 0.07 mg/m<sup>3</sup>(Sen)

WEL = Workplace Exposure Limit.

#### 4,4'-METHYLENEDI(CYCLOHEXYL ISOCYANATE) (CAS: 5124-30-1)

#### DNEL

Workers - Inhalation; Short term local effects: 0.6 mg/m<sup>3</sup>

Workers - Inhalation; Long term local effects: 0.3 mg/m<sup>3</sup>

### 8.2. Exposure controls

#### Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

#### Eye/face protection

Wear chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.

#### Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. 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 apron or protective clothing in case of contact.

#### Hygiene measures

Provide eyewash station and safety shower. When using do not eat, drink or smoke. Wash at the end of each work shift and before eating, smoking and using the toilet.

#### 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: Organic vapour filter. 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

|                                 |                                    |
|---------------------------------|------------------------------------|
| Appearance                      | Clear liquid.                      |
| Odour                           | Slight.                            |
| pH                              | pH (diluted solution): 7 @5%       |
| Melting point                   | Not determined.                    |
| Initial boiling point and range | 148.8°C @                          |
| Flash point                     | 198.8°C Pensky-Martens closed cup. |
| Evaporation rate                | Not determined.                    |
| Vapour pressure                 | Not determined.                    |
| Vapour density                  | Not determined.                    |
| Relative density                | 1.03 @ °C                          |

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**Auto-ignition temperature** Not determined.

### 9.2. Other information

**Volatile organic compound** This product contains a maximum VOC content of 0 g/litre.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity** The following materials may react with the product: Acids. Alcohols, glycols. Alkalis. Amines. Reacts strongly with water.

### 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** May polymerise.

### 10.4. Conditions to avoid

**Conditions to avoid** Avoid heat. Avoid contact with the following materials: Strong oxidising agents. Never add water directly to this product as it may cause a vigorous reaction or boiling.

### 10.5. Incompatible materials

**Materials to avoid** Strong alkalis. Strong acids. Water, steam, water mixtures. Amines. Alcohols, glycols.

### 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 - inhalation

**ATE inhalation (gases ppm)** 2,160.49

**ATE inhalation (vapours mg/l)** 9.26

**ATE inhalation (dusts/mists mg/l)** 1.54

**General information** The product contains small quantities of isocyanate. May cause respiratory allergy. May cause respiratory system irritation.

**Inhalation** Vapour from this product may be hazardous by inhalation. Vapours may irritate throat/respiratory system. A single exposure may cause the following adverse effects: Coughing. Difficulty in breathing. Prolonged inhalation of high concentrations may damage respiratory system. Repeated exposure may cause chronic upper respiratory irritation.

**Ingestion** May cause discomfort if swallowed. Gastrointestinal symptoms, including upset stomach.

**Skin contact** Repeated exposure may cause skin dryness or cracking. Liquid may irritate skin. May cause sensitisation or allergic reactions in sensitive individuals.

**Eye contact** Risk of serious damage to eyes. Severe irritation, burning and tearing.

**Acute and chronic health hazards** Prolonged and repeated contact with solvents over a long period may lead to permanent health problems. May cause sensitisation or allergic reactions in sensitive individuals.

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### SECTION 12: Ecological information

**Ecotoxicity** The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

#### 12.1. Toxicity

**Toxicity** Not considered toxic to fish.

#### 12.2. Persistence and degradability

**Persistence and degradability** The degradability of the product is not known.

#### 12.3. Bioaccumulative potential

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

#### 12.4. Mobility in soil

**Mobility** The product has poor water-solubility.

#### 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 known.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

**General information** Waste is classified as hazardous waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. When handling waste, the safety precautions applying to handling of the product should be considered. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents.

**Disposal methods** Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

### SECTION 14: Transport information

#### 14.1. UN number

**UN No. (ADR/RID)** 2206

**UN No. (IMDG)** 2206

**UN No. (ICAO)** 2206

#### 14.2. UN proper shipping name

**Proper shipping name (ADR/RID)** ISOCYANATES, TOXIC, N.O.S. (4,4'-METHYLENEDI(CYCLOHEXYL ISOCYANATE))

**Proper shipping name (IMDG)** ISOCYANATES, TOXIC, N.O.S. (4,4'-METHYLENEDI(CYCLOHEXYL ISOCYANATE))

**Proper shipping name (ICAO)** ISOCYANATES, TOXIC, N.O.S. (4,4'-METHYLENEDI(CYCLOHEXYL ISOCYANATE))

**Proper shipping name (ADN)** ISOCYANATES, TOXIC, N.O.S. (4,4'-METHYLENEDI(CYCLOHEXYL ISOCYANATE))

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

**ADR/RID class** 6.1

**ADR/RID label** 6.1

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IMDG class 6.1

ICAO class/division 6.1

### Transport labels



### 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

No.

### 14.6. Special precautions for user

EmS F-A, S-A

Emergency Action Code 2X

Hazard Identification Number (ADR/RID) 60

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

EU legislation Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

## SECTION 16: Other information

Revision date 19/02/2021

Revision 5

Supersedes date 04/04/2018

**Hazard statements in full**

H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H319 Causes serious eye irritation.  
 H331 Toxic if inhaled.  
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
 H335 May cause respiratory irritation.

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.