



**SAFETY DATA SHEET
FLEXANE 60L RESIN**

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

1.1. Product identifier

Product name FLEXANE 60L RESIN

Product number X0021

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

Identified uses Resin.

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

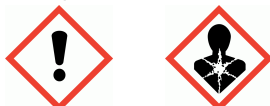
Environmental hazards Not Classified

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

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Hazard statements	<p>H315 Causes skin irritation.</p> <p>H317 May cause an allergic skin reaction.</p> <p>H319 Causes serious eye irritation.</p> <p>H332 Harmful if inhaled.</p> <p>H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.</p> <p>H335 May cause respiratory irritation.</p>
Precautionary statements	<p>P261 Avoid breathing vapour/ spray.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</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>
Contains	4,4'-METHYLENEDI(CYCLOHEXYL ISOCYANATE)
Supplementary precautionary statements	<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>P284 [In case of inadequate ventilation] wear respiratory protection.</p> <p>P312 Call a POISON CENTER/ 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

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

4,4'-METHYLENEDI(CYCLOHEXYL ISOCYANATE)	1-2%
CAS number: 5124-30-1	EC number: 225-863-2
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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tin bis(2-ethylhexanoate)	<1%
CAS number: 301-10-0	EC number: 206-108-6
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. Never give anything by mouth to an unconscious person. 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.
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.
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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.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with foam, carbon dioxide or dry powder.
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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.
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5.3. Advice for firefighters

Protective actions during firefighting	Keep up-wind to avoid fumes. 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

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Personal precautions 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. Ensure suitable respiratory protection is worn during removal of spillages in confined areas.

6.2. Environmental precautions

Environmental precautions Avoid 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 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 Open drum carefully as content may be under pressure. Provide adequate ventilation. Avoid inhalation of vapours. Use approved respirator if air contamination is above an acceptable level. Do not eat, drink or smoke when using the product. Do not use in confined spaces without adequate ventilation and/or respirator. Do not breathe vapour. Avoid contact with skin and eyes. 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. 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)

tin bis(2-ethylhexanoate)

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 WEL = Workplace Exposure Limits

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

8.2. Exposure controls

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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

The following protection should be worn: Chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection

Wear protective gloves made of the following material: Butyl rubber. Neoprene. 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. 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. Promptly remove any clothing that becomes wet or contaminated.

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

Appearance	Liquid.
Colour	Clear liquid.
Odour	Slight.
pH	pH (concentrated solution): 7 @ 25 °C
Melting point	n/d°C
Initial boiling point and range	>149.°C @
Flash point	>234.°C
Vapour pressure	<10mmHg @ °C
Relative density	1.04 @ 25 °C°C
Viscosity	3500 @ 25°C

9.2. Other information

Other information	Not available.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Alcohols, glycols. Amines. Alkalis.
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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: Water, moisture. Alcohols, glycols. Amines. Alkalis.

10.6. Hazardous decomposition products

Hazardous decomposition products Fire or high temperatures create: Nitrous gases (NO_x). 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) 35,175.88

ATE inhalation (vapours mg/l) 150.75

ATE inhalation (dusts/mists mg/l) 25.13

Inhalation Harmful by inhalation. May cause sensitisation by inhalation.

Skin contact Irritating to skin. May cause sensitisation by skin contact.

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..

4,4'-METHYLENEDI(CYCLOHEXYL ISOCYANATE)

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 18,200.0

Species Rat

ATE oral (mg/kg) 18,200.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 7,000.0

Species Rat

ATE dermal (mg/kg) 7,000.0

Acute toxicity - inhalation

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ATE inhalation (gases ppm)	700.0
ATE inhalation (vapours mg/l)	3.0
ATE inhalation (dusts/mists mg/l)	0.5

SECTION 12: Ecological Information

Ecotoxicity Avoid release to the environment.

12.1. Toxicity

Acute toxicity - fish LC₅₀, 96 hours: 1200 mg/l, Algae

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

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 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

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)

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No information 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 No information required.

Annex II of MARPOL 73/78

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 03/04/2018

Revision 17

Supersedes date 28/04/2016

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.
- H361 Suspected of damaging fertility or the unborn child.
- 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.