

18/04/05



# Health and Safety Data Sheet

Two Part Polyurethane Foam Part B

## 1) Identification of the product

a) Flint Hire & Supply Ltd product names and codes

Two Part Polyurethane Foam Part B 1kg  
Two Part Polyurethane Foam Part B 5kg  
Two Part Polyurethane Foam Part B 25kg

Code PAT841  
Code PAT843  
Code PAT8431

b) Manufactures Product Names

Isofoam RM DP6216W ISO

### SUPPLIER

Flint Hire & Supply  
Queens Row  
London SE17 2PX  
Phone: 020 7703 9786  
Fax: 020 7703 0616

### MANUFACTURER

Baxenden  
Polyurethane Systems Division  
Paragon Works  
Baxenden  
Accrington  
Lancs. BB5 2SL  
Phone: 012 5487 2278  
Emergency phone number: 012 5487 2278

## 2) Composition

Chemical name (CAS No)	% of Composition	Hazard
4,4'diphenylmethane diisocyanate (9016-87-9/101-68-8)	100	Harmful – R20, R36/37/38, R42

## 3) Physical and chemical properties

Appearance:	Brown liquid
Odour:	Characteristic odour
Boiling point °C:	Polymerises at 260°C with evolution of carbon dioxide gas.
Melting Range °C:	Not applicable

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Freezing point °C:	<5
Softening point °C:	Not applicable
Flash point °C:	>200
Flammability Limits:	Not applicable
Explosion limits:	Not determined
Auto ignition temperature °C:	>200
Vapour pressure:	<0.0003 mbar at 25°C
Vapour density (air=1):	Approximately 8
Specific gravity (water=1):	1.24
Solubility:	Reacts with solvents containing active hydrogen e.g. alcohols Good in most common solvents
Miscibility in water:	Reacts with water
Viscosity (mPa.s = cps)	350 mPa.s at 20°C
Non-volatile Matter %	0

### 4) Fire fighting measures

Suitable extinguishing media:	Foam, dry powder, carbon dioxide. On case of larger fires, water spray/mist may be used.
Extinguishing media which must not be used:	Water jets are not suitable.
Special exposure hazard(s):	In the event of a fire may produce toxic vapour and fumes.
Protective equipment:	Full-face positive pressure breathing apparatus and full protective clothing.

### 5) First aid measures

Skin Contact:	Wash with soap and water for 15 minutes. Obtain medical attention.
Eye Contact:	Flush with copious amounts of water for at least 15 minutes. Seek immediate medical attention.
Ingestion:	If ingested do not induce vomiting, immediately seek medical attention.
Inhalation:	Remove to fresh air. If not breathing apply artificial respiration, If breathing is difficult, oxygen may be given by suitable qualified personnel. Seek medical attention, Effects may be delayed.
Advice to physicians:	Treat symptomatically for primary irritation or bronchospasm.

### 6) Stability and reactivity

Chemical Stability:	Stable under recommended storage conditions and in intended use and applications.
Conditions to avoid:	Contamination with water.

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Materials to avoid: Acids, amines, water, alcohols, oxidising agents, heavy metals.

Hazardous decomposition products: Stable under recommended storage conditions and in intended use and applications. Toxic fumes or vapours may be generated on incineration.

Hazardous polymerization: May occur if held at temperatures in excess of 80°C, or in contact with amines, water, alcohols acids or heavy metals.

### 7) Toxicological information

Oral: Single dose oral toxicity is low.  
Ingestion may result in nausea, dizziness, irritation of the gut.

Skin: LD50 (Oral Rat) > 5000 mg/Kg  
Repeated skin contact will cause defatting, leading to irritation and dermatitis.

Eyes: Severe eye irritant.

Respiratory: May cause irritation of the nose and throat. May cause headaches breathlessness (respiratory effects could be delayed)

Sensitisation: Respiratory sensitisation may occur as a result of long term exposure to isocyanate vapours or short term exposure to excessive vapour concentrations.  
Median Lethal Concentration (4hr) (aerosol): 370mg/m3 (rat).

Chronic effects: Possible sensitisation and long-term asthma-like symptoms may result from exposure to isocyanates.

Appraisal of Toxicological Data: Repeated or prolonged exposure to components of this preparation may result in irreversible effects.

### 8) Ecological information

Ecotoxicity: Entry into water may result in the blocking of sunlight and oxygen diffusion so causing harm to the aquatic environment.

Bioaccumulative Potential: Bioaccumulative potential of some components should be considered to be high due to low biodegradation rates.

Appraisal: All necessary precautions should be taken to prevent entry of the components into soil, water or atmosphere.

WGK Value: 1

### 9) Handling and storage

Handling precautions: Avoid contact with skin and eyes. Do not breathe vapours. Do not allow to contaminate clothing. Prolonged contact may

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cause severe damage. Wash thoroughly after handling. See separate section for health hazards. Ensure adequate ventilation to maintain atmospheric levels in accordance with exposure limit(s).

Storage precautions: Keep containers tightly closed and dry, in a well ventilated area away from heat and direct sunlight Store in containers supplied

Storage Temperature: 10-23°C

### 10) Exposure standards/Personal protection

Engineering Measures: Positive exhaust ventilation (flameproof if necessary) or natural ventilation that maintains atmospheric level in accordance with exposure limit(s).

Control Parameters:

Chemical (CAS No): 4,4'diphenylmethane  
 (9016-87-9/101-68-8)

Exposure limit: MEL(as-NCO)=0.02mg/m<sup>3</sup> (8hr TWA), 0.07mg/m<sup>3</sup> (15 min STEL) The Isocyanate exposure limits listed above do not apply to previously sensitised individuals. Sensitised individuals should be removed from any further exposure.

Personal Protection-Respiratory:

In the absence of exhaust or natural ventilation that maintains atmospheric concentration in accordance with the exposure limit(s), self contained or airline breathing apparatus should be worn.

Atmospheric monitoring may be necessary to ensure engineering controls provided are adequate.

Pre-employment and routine health surveillance should be carried out if considered appropriate for the protection of health of those who are, or who are liable to be exposed to a substance hazardous to health.

Personal Protection-Hand: Chemical resistant rubber gloves-change as frequently as required.

Personal Protection-Eye: Full face visor.

Personal Protection-Skin: Chemical proof suit and footwear

### 11) Accidental release measures/spillage

Personal protection: Full-face positive pressure breathing apparatus and full protective clothing.  
 PVC or rubber gloves.

Environmental precautions: Contain and cover any spillage immediately with sand, earth or other suitable absorbent. Prevent ingress into water courses and sewers. Neutralise with decontaminant (see Baxenden brochure "Isocyanates & Polyurethanes-Safety advice" for further information)

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**Methods of clean-up:** Transfer absorbent material to a suitable waste container. Do not seal. Keep damp and in open air for 7 days. Dispose of in accordance with local and National regulations.

### 12) Disposal

**Dangers:** Drum pressurisation can occur as a result of reaction with water or atmospheric moisture or if heated. Toxic fumes or vapours may be generated on incineration. Do not allow to enter water courses.

**Disposal of Substance/Preparation:** Small quantities of isocyanate may be decontaminated using an approved technique (see Baxenden brochure "Isocyanates & Polyurethanes – Safety advice"). Larger quantities should be disposed of in accordance with local and National regulations.

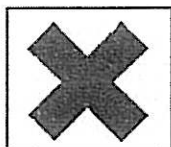
**Disposal of Packaging:** Drums may be decontaminated by an approved procedure (see Baxenden brochure "Isocyanates & Polyurethanes – Safety Advice"). After decontamination dispose of in accordance with local and National regulations.

### 13) Transport information

UN No.	Not applicable
Packing Group	Not applicable
ADR/RID Class	Not applicable
IMO Class	Not applicable
ICAO/IATA Class	Not applicable
IMO Shipping name	Not applicable
IATA Shipping name	Not applicable
ADR/RID Shipping name	Not applicable
MFAG Table No.	Not applicable
EMS No.	Not applicable
Marine Pollutant (Yes/No)	No

### 14) Regulatory information

**Classification & Symbol(s):**



**HARMFUL**

**Risk Phrases:** R20: Harmful by inhalation  
 R36/37/38: Irritating to eyes, respiratory system and skin

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R42: May cause sensitization by inhalation

### Safety Phrases

See information supplied by the manufacturer  
 S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
 S28: After contact with skin, wash immediately with plenty of soap and water.  
 S38: In case of insufficient ventilation, wear suitable respiratory equipment.  
 S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

### Other Phrases:

Keep container tightly closed when not in use  
 Do not allow ingress of moisture  
 Contains isocyanates  
 See information supplied by the manufacturer

## 15) Hazard identification

Routes of exposure/Health hazards: Skin and eye contact, inhalation and ingestion.

Symptoms of Exposure (Acute): May be slight irritation to skin  
 Vapour may cause irritation of nose, throat and upper respiratory system  
 Irritating to eyes

Symptoms of Exposure (Chronic): Long term exposure to isocyanate vapour may lead to respiratory problems including asthma and sensitisation.  
 Repeated skin contact may cause dermatitis.

Medical conditions aggravated by exposure:  
 Bronchitis, asthma and other respiratory complaints  
 Dermatitis, eczema, psoriasis and other skin complaints  
 Conjunctivitis and other eye complaints

Explosion hazards: Isocyanates react with water to liberate carbon dioxide. Any ingress of moisture into an isocyanate container, whether full or empty, can lead to a pressure build up and subsequent explosion.

Fire hazards: All organic materials are combustible and may present a fire risk if exposed to flame, fire heat or other potential sources of ignition.

Corrosion hazards: No known corrosive hazard

Environmental hazards: Entry into water courses and sewage systems

## 16) Other information





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Recommended use and restrictions: This material is intended for use by trained personnel solely for the application described in the Technical Data Sheet and for no other purpose.

Required training of Personnel: All personnel involved in the handling and use of this material should be adequately trained in the handling of chemical products, the use of protective equipment and engineering control measures provided and should read and understand this data sheet.

Technical contact point MSDS: Technical Manager, Polyurethane Systems Division.

Main References: Internal data/EH40/component supplier information. MDI001

**Please Note – This Material Safety Data Sheet should be read in conjunction with the Technical Information sheet for the product.**

The information contained in this data sheet is, to the best of our knowledge, true and accurate, but any recommendations or suggestions which may be made are without guarantee, since the conditions of use are beyond our control. Furthermore, nothing contained herein shall be construed as a recommendation to use any product in conflict with existing patents covering any material or its use.