

# J-Cast 85 Part B

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY

**Product Name:** J-Cast 85 Part B  
**Chemical Name:**  
**Supplier:** Jacobson Chemicals Ltd  
 Unit 4  
 Newman Lane Industrial Estate  
 Alton  
 Hants  
 GU34 2QR  
**Telephone:** 01420 86934  
**Fax:** 01420 549574  
**E-mail:** sales@jacobsonchemicals.co.uk

## 2. COMPOSITION

**Substance:** N/a  
**Substance Name:** N/a  
**EC No:** 223-861-6  
**CAS Number:** 004098-71-9  
**EEC Number:** N/a

<u>Constituents</u>	<u>% by Wt.</u>	<u>Hazard</u>	<u>Risk</u>
Isophorone Di-isocyanate	>95%	Toxic	R23-Toxic by ingestion. R36/37/38 - Irritating to eyes, respiratory system, and skin. R42/43 - May cause sensitization by inhalation and skin contact. R51/53 - Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.

## 3. HAZARD IDENTIFICATION

**The most important hazards are:** Toxic, dangerous to the environment.  
**Inhalation:** Toxic by inhalation.  
**Skin Contact:** Irritating to skin, may cause sensitization.  
**Eye Contact:** Irritating to eyes.  
**Ingestion:** May cause severe burns of mouth and throat.  
**Other Information:** Vapour hazard is low to moderate at room temperature. If heated or sprayed high concentrations can be attained that could be hazardous on single exposure and may cause irritation of upper respiratory tract and lungs. Exposure to vapour may cause sensitization in susceptible individuals. Contact with eyes may cause irritation with corneal injury. Prolonged or repeated skin contact may cause irritation. Oral LD<sub>50</sub> is low however ingestion may cause severe burns to mouth and throat.

Information contained in this document is the result of careful tests carried out objectively. It has been produced to aid the Buyer, but without implying any commitment on our part. The Buyer shall remain responsible for satisfying himself that the products as supplied by us are suitable for his intended purpose. Since we cannot control the application, process, or use of these products, we cannot accept responsibility therefore.

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## 4. FIRST AID MEASURES

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<b>Immediate medical attention:</b>	Yes
<b>Professional assistance from physician required?</b>	Yes
<b>Inhalation:</b>	Remove to fresh air and allow to rest. If not breathing give artificial respiration. Obtain medical attention and keep under observation for up to 48 hours as effects can be delayed.
<b>Skin Contact:</b>	Wash contaminated area with soap and water. Use skin cream to prevent dryness. Launder contaminated clothing.
<b>Eye Contact:</b>	Flush immediately with water for 10-15 minutes prising eyelids open with fingers. Seek medical attention immediately.
<b>Ingestion:</b>	Do not induce vomiting and if conscious and alert give ½ litre of lukewarm water. Seek medical attention.

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## 5. FIRE-FIGHTING MEASURES

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<b>Suitable extinguishing media:</b>	Foam, dry chemical, CO <sub>2</sub> , water mist in large quantities.
<b>Unsuitable extinguishing media:</b>	Small quantities of water.
<b>Other comments:</b>	Where large quantities are involved breathing apparatus should be used.
<b>Special Exposure Hazards:</b>	May produce toxic and/or flammable vapours when heated. When mixed with air and exposed to an ignition source vapours can burn in the open or explode if confined. Vapours may be heavier than air. May travel long distances along ground before igniting and flashing back to source.
<b>Special fire fighting procedures:</b>	Evacuate downwind personnel.
<b>Protective equipment required:</b>	Positive pressure self-contained breathing apparatus should be used.

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## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions:</b>	Evacuate unnecessary personnel. Wear suitable protective clothing including positive pressure self-contained breathing apparatus.
<b>Methods of Cleaning:</b>	Wear full protective clothing including gloves and goggles and self-contained positive pressure breathing apparatus. Supplies of suitable decontaminant should be readily available. Cover spillage with solid decontaminant, sawdust, sand or earth and allow to react for 30 minutes minimum. Sweep into open drums and remove for further decontamination and disposal. Wash spillage area with water and test for isocyanate vapours before allowing personnel into the area.
<b>Environmental Precautions:</b>	Do not allow to enter drains or watercourses.

## 7. HANDLING & STORAGE

<b>Handling:</b>	Avoid accumulation of vapours. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Use only in a well ventilated place with local exhaust ventilation where necessary to ensure that the OEL for IPDI is not exceeded.
<b>Storage:</b>	Contact with moisture liberates carbon dioxide gas, which can cause dangerous pressure build-up in closed containers. Store in a dry place at 5-25°C in tightly sealed original containers.

## 8. EXPOSURE CONTROLS

<b>Take measures to prevent:</b>	Build up of vapours. Contact with water or atmospheric moisture. Inhalation of vapour. Contact with skin and eyes.
<b>Exposure to control limits:</b>	Isocyanates (all) MEL: Long term (8 hours): 0.02 mg/m <sup>3</sup> Short term (15 min): 0.07 mg/m <sup>3</sup>
<b>Respiratory protection:</b>	Vapour levels should be maintained below the control limits. Where necessary use suitable breathing equipment.
<b>Hand Protection:</b>	Wear suitable gloves.
<b>Eye Protection:</b>	Wear goggles or safety glasses. Locate eyewash bottle in immediate area of work.
<b>Skin Protection:</b>	Wear suitable protective clothing.

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## 9. PHYSICAL & CHEMICAL PROPERTIES

<b>Appearance:</b>	Liquid
<b>Odour:</b>	N/a
<b>Colour:</b>	Water white clear
<b>Boiling Point:</b>	~ 158°C
<b>Melting Point:</b>	~ -60°C
<b>Flash Point:</b>	~ 163°C
<b>Autoignition Temperature:</b>	~ 430°C
<b>Flammability:</b>	Lower flammability limit at normal temp & pressure ~ 1
<b>Vapour Pressure:</b>	~ 0.0003 mmHg @ 20°C
<b>Relative density:</b>	~ 1.05
<b>Solubility:</b>	Insoluble in water, reacts with evolution of CO <sub>2</sub> .

## 10. STABILITY & REACTIVITY

<b>Conditions to avoid:</b>	Excessive heat.
<b>Materials to avoid:</b>	Acids, alcohols, amines, bases, water, galvanized metals, copper and its alloys.
<b>Hazardous decomposition products:</b>	Oxidizes of nitrogen and carbon, hydrogen cyanide, other hazardous gaseous products.

## 11. TOXICOLOGICAL INFORMATION

### ACUTE TOXICITY

<b>Inhalation:</b>	Inhalation would be expected to cause irritation of the nose, mouth, throat and lungs. Inhalation may cause asthma-like symptoms, including coughing, wheezing, tightness of chest, short of breath and headache.
<b>Skin Contact:</b>	This material is a severe skin irritant.
<b>Skin Absorption:</b>	Although no appropriate human or animal health effects data are known to exist, this material is not expected to be a health hazard by skin absorption.
<b>Eye Contact:</b>	May result in severe irritation and possible damage to the cornea and impairment of vision. The effects of high vapour concentration may vary from slight irritation (with tearing and a burning sensation) to keratitis (inflammation of the cornea) and impairment of vision.
<b>Ingestion:</b>	Gastroenteritis may result with any or all of the following symptoms: nausea, vomiting, diarrhoea, headache.

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## CHRONIC TOXICITY

### Chronic Health Effects:

Repeated skin contact may cause irritation and allergic dermatitis. Repeated inhalation may also cause allergic sensitization of the respiratory tract, resulting in coughing, wheezing, shortness of breath, chest tightness, and other asthma-like symptoms that may be life-threatening.

### Material Toxicity:

Interaction with other isocyanates may cross-react and cause similar sensitization responses. Isophorone diisocyanate (IPDI) is a skin and respiratory allergic sensitiser. Sensitive individuals may exhibit a skin rash, wheezing, tightness of chest, and difficulty breathing that may progress to a life threatening inability to breathe. Chronic inhalation may cause lung damage.

### Component:

Isophorone diisocyanate.

### Special Health Effects:

Exposure may aggravate one or more of the following medical conditions: asthma or asthmatic bronchitic medical history, history or presence of allergic disease, cardiovascular disease.

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## 12. ECOLOGICAL INFORMATION

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Reaction with water produces insoluble polyurea, estimated to have a low level of biodegradation.

### ECOTOXICITY EFFECTS

#### Toxicity to fish:

LC50 *Leuciscus idus melatonus*: 1.8mg/L/48h  
Method: DIN 38412 Teil 15

#### Toxicity to daphnia:

EC50 *Daphnia magna*: 27mg/L/48h  
Method: EC92/69

#### Toxicity to algae:

EC50 *scenedesmus subspicatus*: >70mg/L/3h  
End point: growth rate  
Method: EC 92/69

The result is based on the maximum concentration of the dissolved substance as obtained in the test.

#### Toxicity to bacteria:

EC50 activated sludge, mixed population:  
263nmg/L/3h  
Method: respiration inhibition test: EC 88/302

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## 13. DISPOSAL CONSIDERATIONS

<b>Likely residues / waste products:</b>	Small quantities of waste should be reacted with polyol to neutralize prior to disposal. Empty drums should be decontaminated and scrapped.
<b>Safe handling of and residues/waste products:</b>	Dispose of neutralized residues by controlled incineration or approved landfill in accordance with local authority regulations.

## 14. TRANSPORT INFORMATION

<b>Special carriage precautions in carriage:</b>	N/a
<b>Classification data:</b>	N/a
<b>UN Number:</b>	2290
<b>Proper Shipping Name:</b>	Isophorone Diisocyanate
<b>IMO/IMDG - Sea:</b>	6.1, Packing group III
<b>ICAO/IATA - Air:</b>	6.1, Packing group III
<b>ADR/VLG - Road:</b>	6.1, 19°C
<b>ADNR/VBG:</b>	6.1, 19°C
<b>RID/VSG:</b>	6.1, 19°C
<b>Transport Category:</b>	N/a

## 15. REGULATORY INFORMATION

<b>Supply label information:</b>	TOXIC, DANGEROUS TO THE ENVIRONMENT. Contains isocyanates. See information supplied by manufacturer.
<b>Hazard Symbol:</b>	TOXIC
<b>Risk Phrases:</b>	R23 - Toxic by inhalation. R36/37/38 - Irritating to eyes, respiratory system and skin. R42/43 - May cause sensitization by inhalation and skin contact. R51/53 - Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.
<b>Safety Phrases:</b>	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 water and soap. 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 this label where possible). S61 - Avoid release to the environment. Refer to special instructions/safety data sheets.

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**16. OTHER INFORMATION**

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| a) <b>Training needs:</b>                    | For further information contact our office.   |
| b) <b>Recommended uses and restrictions:</b> | Isocyanate component for two-part polyurethane.<br>No other use recommended.  |
| c) <b>Further references:</b>                | N/a   |
| d) <b>Key data sources:</b>                  | Manufacturer's data.<br>Occupational Exposure Limits. Guidance Note<br>EH40<br>Approved Supply List (CHIP Regulations 1996) |

The data contained in this Safety Data Sheet has been supplied as required, by the Chemicals (Hazard Identification and Packaging) Regulations 1994, as amended, for the purposes of protecting the health and safety of industrial and commercial users who are deemed capable of understanding and acting on the information provided.

Please ensure that it is passed to the appropriate person in your company, who is capable of acting on the information.

**NOTE:**

This data sheet does not constitute a user's assessment of workplace risk as required by HSW Act, COSHH, Management of Health and Safety at Work regulations, or other Health & Safety at Work regulations.