

J-Cast 65 Part A

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY

Product Name: J-Cast 65 Part A
Chemical Name: Urethane Polyol
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: No
Substance Name: Mixture
EC Index No: -
CAS Number: -
EEC Number: -

<u>Constituents</u>	<u>Range</u>	<u>Haz Symt</u>	<u>Risk</u>
Phenylmercury carboxylate	<1.0	Toxic	R24/25, R33, R34

3. HAZARD IDENTIFICATION

The most important hazards are: Vapour hazard is negligible at room temperature.
 Contact with eyes may cause mild irritation
 Repeated skin contact may give rise to irritation.
 Single dose oral is low.

4. FIRST AID MEASURES

Immediate medical attention: Yes
Professional assistance from physician required? Yes
Inhalation: N/A
Skin Contact: Remove soiled clothing. Remove product with dry paper towel. Do not use solvents. Wash affected area with soap & water.
Eye Contact: In case of contact, immediately flush with plenty of water for at least 15 minutes. Seek medical attention.
Ingestion: ***Do not induce vomiting.*** Slowly dilute with 1-2 glasses of water or milk & seek medical attention.

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.

J-Cast 65 Part A

5. FIRE-FIGHTING MEASURES

Extinguishing media:	Carbon dioxide, foam dry powder or water spray.
Special protective equipment:	Suitable respiratory equipment.
Exposure hazards:	Avoid inhaling fumes. Incomplete combustion releases toxic gases.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Wear mask, gloves & goggles.
Methods of Cleaning:	Wash walking surfaces to avoid slipping hazard. Wipe, scrape or soak up in an inert material & dispose of according to local authority regulations. Do not allow entering the watercourse.

7. HANDLING & STORAGE

Handling:	Avoid contact and inhalation of vapours and dusts. Do not eat, drink or smoke while working. Wash hands after use.
Storage:	The product is moisture sensitive. Keep in a dry place in the original containers tightly closed.
Incompatible materials:	Acids and strong oxidising agents.

8. EXPOSURE CONTROLS

Take measures to prevent:	Use adequate ventilation for the work area and storage area.
Exposure to control limits:	N/a
Respiratory protection:	N/a
Hand Protection:	Use protective gloves.
Eye Protection:	Safety goggles.
Skin Protection:	Use protective gloves.

9. PHYSICAL & CHEMICAL PROPERTIES

Appearance:	Liquid
Odour:	Slight
Colour:	Clear
Flash Point:	>180 °C
Specific Gravity:	1.05 gcm ⁻³ @ 25 °C
Viscosity:	600 mPas @ 25 °C
Solubility:	Insoluble in water Soluble in organic solvents

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.

J-Cast 65 Part A

10. STABILITY & REACTIVITY

Conditions to avoid:	Temperatures below 0 °C
Materials to avoid:	Avoid contact with acids, bases or oxidising agents.
Hazardous decomposition products:	Carbon dioxide, Carbon monoxide.

11. TOXICOLOGICAL INFORMATION

There was not toxicological data available on this preparation.

12. ECOLOGICAL INFORMATION

Possible effects:	This product is, in part, biodegradable. However it does contain very small quantities of materials which may be harmful to aquatic life.
Behaviour:	As above.
Environmental fate:	As above.

13. DISPOSAL CONSIDERATIONS

Likely residues / waste products:	N/a
Safe handling of and residues/waste products:	Disposal is normally achieved by burial or combustion on an approved site and according to local authority regulations.

14. TRANSPORT INFORMATION

Special carriage precautions in carriage:	None
Classification data:	None
UN Number:	None
Proper Shipping Name:	None
IMO - Sea:	None
ICAO - Air:	None
ADR - Road:	None
Transport Category:	None
Limited Quantity Size:	None
Additional Data:	Non-hazardous for transport.

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.

J-Cast 65 Part A

15. REGULATORY INFORMATION

Supply label information:	None
Hazard Symbol:	None
Risk Phrases:	None
Safety Phrases:	S36/39: Wear suitable protective clothing and face/eye protection.

16. OTHER INFORMATION

a) Training needs:	For further information contact our office.
b) Recommended uses and restrictions:	For use as a prototyping casting material for industrial applications only. Not for direct contact onto skin on any account.
c) Further references:	
d) Key data sources:	<ul style="list-style-type: none"> i.) HSE - EH40/98: Occupational exposure limits 1997. ii.) Guidance Note EH40/98. iii.) Approved Supply list (CHIP Regulations 1996). iv.) Supplier's Health & Safety data sheet. v.) Croner's Hazard information & Packaging.

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.

J-Cast 65 Part B

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY

Product Name: J-Cast 65 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 LD₅₀ 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.

J-Cast 65 Part B

4. FIRST AID MEASURES

Immediate medical attention:	Yes
Professional assistance from physician required?	Yes
Inhalation:	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.
Skin Contact:	Wash contaminated area with soap and water. Use skin cream to prevent dryness. Launder contaminated clothing.
Eye Contact:	Flush immediately with water for 10-15 minutes prising eyelids open with fingers. Seek medical attention immediately.
Ingestion:	Do not induce vomiting and if conscious and alert give ½ litre of lukewarm water. Seek medical attention.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:	Foam, dry chemical, CO ₂ , water mist in large quantities.
Unsuitable extinguishing media:	Small quantities of water.
Other comments:	Where large quantities are involved breathing apparatus should be used.
Special Exposure Hazards:	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.
Special fire fighting procedures:	Evacuate downwind personnel.
Protective equipment required:	Positive pressure self-contained breathing apparatus should be used.

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.

J-Cast 65 Part B

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Evacuate unnecessary personnel. Wear suitable protective clothing including positive pressure self-contained breathing apparatus.
Methods of Cleaning:	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.
Environmental Precautions:	Do not allow to enter drains or watercourses.

7. HANDLING & STORAGE

Handling:	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.
Storage:	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

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

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.

J-Cast 65 Part B

9. PHYSICAL & CHEMICAL PROPERTIES

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

10. STABILITY & REACTIVITY

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

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Inhalation:	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.
Skin Contact:	This material is a severe skin irritant.
Skin Absorption:	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.
Eye Contact:	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.
Ingestion:	Gastroenteritis may result with any or all of the following symptoms: nausea, vomiting, diarrhoea, headache.

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.

J-Cast 65 Part B

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.

12. ECOLOGICAL INFORMATION

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

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.

J-Cast 65 Part B

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

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

15. REGULATORY INFORMATION

Supply label information:	TOXIC, DANGEROUS TO THE ENVIRONMENT. Contains isocyanates. See information supplied by manufacturer.
Hazard Symbol:	TOXIC
Risk Phrases:	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.
Safety Phrases:	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.

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.

J-Cast 65 Part B

16. OTHER INFORMATION

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