

MATERIAL SAFETY DATA SHEET according to EC directive 93/112/EC

Version Number: 03
Date Modified: March 2012
Product Code: FC 11H

1. IDENTIFICATION OF PRODUCT

Product Name: FC 11H
Product Type: ISOCYANATE COMPONENT FOR TOOLING SYSTEM
Application: PU CASTING
Supplier:

2. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components

Chemical name	CAS-No.	Symbol(s):	R-phrases	Concentration (%)
Diphenylmethane-diisocyanate	26447-40-5	Xn	R20 R36/37/38 R42/43	40.00 - 50.00
Diethylene glycol, 1,2- propanediol, 1,3-butanediol, diphenylmethane-Diisocyanate, polymer	155662-82-1	Xn	R20 R36/37/38 R42/43	1.00 - 5.00
Diphenylmethane-4,4'-diisocyanate	101-68-8	Xn	R36/37/38 R42/43	20.00 – 30.00

3. HAZARDS IDENTIFICATION

Harmful by inhalation
Irritating to eyes respiratory system and skin.
May cause sensitisation by inhalation,

Safety Hazards

No specific hazards under normal use conditions

Environmental Hazards

May cause sensitisation by skin contact.
Irritating to respiratory system

4. FIRST AID MEASURES

Inhalation: Move the exposed person to fresh air. Keep the affected person warm and at rest. Get medical attention. If breathing stops, provide artificial respiration. For breathing difficulties oxygen may be necessary.

Skin Contact: Remove from source of exposure . Wash with soap and plenty of water

Eye Contact : Remove from source of exposure. Flush with plenty of water also under the eyelids for at least 15 minutes. Obtain medical attention

Ingestion: If ingested do not induce vomiting, seek medical attention. Rinse mouth thoroughly. Provide rest warmth and fresh air. Drink plenty of water

5. FIRE FIGHTING MEASURES

Suitable extinguishing media Foam, dry powder, carbon dioxide. Do not use water if avoidable
Keep run off water out of sewers and water sources. Dike for water control. Avoid water in straight hose stream: will scatter fire

Extinguishing media which must not be used Water jets are not suitable

Special exposure hazard(s) In case of fire, wear a self contained breathing apparatus

Further information Burning produces obnoxious and toxic fumes. Carbon oxides.
Nitrogen oxides.

6. ACCIDENTAL RELEASE MEASURES

Personal protection	Ensure adequate ventilation. Use personal protective equipment
Environmental precautions	Do not flush into surface water or sanitary sewer system
Methods of clean-up	Soak up with inert absorbent material. Shovel into suitable container for disposal. Neutralise with water

7. HANDLING AND STORAGE

Handling precautions	
Handling:	Provide sufficient air exchange and/or exhaust in work rooms. Always replace cap after use
Storage precautions	Keep container tightly closed and dry, never allow product to get in contact with water during storage

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name:	National occupational exposure limits:
Diphenylmethane-4,4'-diisocyanate	0.02 mg m ³ (8 hr TWA) 0.07 mg m ³ (15 min TWA)
Engineering Measures	Ensure adequate ventilation especially in confined areas
Personal Protection	
Equipment	In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.
Respiratory protection	
Personal protection-hand	Impervious gloves
Personal protection-eye	Wear as appropriate: safety glasses with side-shields, face shield
Personal protection-skin	Wear as appropriate protective suit, boots.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Amber liquid
Solubility	Insoluble in Water - Reacts
Boiling point °C	> 200°C
Relative density	1.12 g/cm ³
Melting range °C	< 15°C
Flash point °C	> 100°C
Viscosity, dynamic :	80 mPa.s at 25 °C

10. STABILITY AND REACTIVITY

Chemical stability	Stable under recommended storage conditions and in intended use and applications.
Conditions to avoid	Humid air and/or water will produce carbon dioxide which will pressurise the container
Materials to avoid	Water, strong acids and strong bases
Hazardous decomposition products	Incomplete combustion may produce small amounts of carbon monoxide, aromatic isocyanates

11. TOXICOLOGICAL INFORMATION

Health Hazards, General	Preparation contains isocyanate which may cause allergic reaction and irritation of respiratory system
Inhalation:	Prolonged inhalation of high concentrations may damage respiratory system. May cause sensitisation by inhalation
Ingestion:	May cause irritation of gastrointestinal tract
Skin Contact:	Slightly irritating. May cause sensitisation by skin contact
Eyes:	Irritating to eyes

12. ECOLOGICAL INFORMATION

Environmental Hazards:	Little danger to the environment
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13. DISPOSAL CONSIDERATIONS

Waste from residues/unused products:	Can be land filled or incinerated, when in compliance with local regulations
Contaminated packaging:	Puncture container to avoid re-use

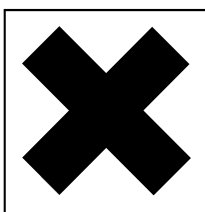
14. TRANSPORT INFORMATION

Label for conveyance:	No transport warning sign required
	This product is not classified as dangerous for transportation purposes.

15. REGULATORY INFORMATION

Classification according to European directive on classification of hazardous preparations 90/492/EEC

Contains:	Diphenylmethane-4,4'-diisocyanate
Symbols:	Xn - Harmful



R-phrase(s):	R20 - harmful by inhalation R36/37/38 - irritating to eyes, respiratory system and skin R42/43 - May cause sensitisation by inhalation and skin contact
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S-phrases	S26 - In case of contact with eyes, rinse immediately with plenty of water S28 - After contact with skin wash immediately with 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 label where possible) P 4 - Contains isocyanate – see information supplied by manufacturer
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EC DIRECTIVES Statutory Instruments	System of specific information relating to dangerous Preparations 91/155 Chemicals (Hazard Information and Packaging) Regulations Control of Substances Hazardous to Health
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National legislation Notification status	: EINECS yes : TSCA yes : AICS yes
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16. OTHER INFORMATION

List of R Phrases (Section 2)

R20 Harmful by inhalation.
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R36/37/38 Irritating to eyes, respiratory system and skin.
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R42/43 May cause sensitization by inhalation and skin contact.
R42/43 May cause sensitization by inhalation and skin contact.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R53 May cause long-term adverse effects in the aquatic environment.

The provision of Safety Data Sheets comes under Regulation 6 of CHIP (CHIP is the recognised abbreviation for the Chemicals Hazard Information and Packaging Regulations). This is an addition to the Health and Safety at Work Act 1974.

Users of products supplied by JCL should take appropriate measures to ensure working practices are in accordance with the Control of Substances Hazardous to Health Regulations (COSHH).

All information is based on results gained from experience and tests and is believed to be accurate but is given without acceptance of liability for loss or damage attributable to reliance thereon as conditions of use lie outside our control. Users should always carry out sufficient tests to establish the suitability of any products for their intended applications. No statements shall be incorporated in any contract unless expressly agreed in writing nor construed as recommending the use of any product in conflict of any patent. All goods are supplied subject to JCL General Conditions of Sale.