



1. Identification of the Substance and the Company/Undertaking

Identification of the substance

Trade name **E:Iso**

Identification of the Company

Name Cpi Foam Ltd

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2. Composition/Information on Ingredients

CAS-No.	Description	Weight %	Symbol	R-Phrases
9016-87-9	Diphenyl methane diisocyanate, isomers and homologue	100	Xn Xi	20 36/37/38-42/43

3. Hazards Identification

Dangerous to health by inhalation, irritation of eyes, respiratory organ and skin. Sensitisation by inhaling and skin contact possible.
Hypersensitive persons (asthma, bronchitis) shouldn't get in contact with the products. Even several hours after high exposure symptoms at the respiratory tract may appear. Vapours and aerosols are main dangers for the respiratory tracts (see chapter 11 and 12).

4. First-Aid-Measures

General measure contaminated shoes and clothes have to be taken off and decontaminated.
Inhalation of aerosols or vapour at high concentration go immediately out into the air, keep warm and have a rest; in case of respiratory problems medical aid required.
Skin contact after contact with skin, using cleaner on polyethylene glycol base, wash immediately with plenty of water and soap.
Eye contact contamination of the eyes must be treated by thorough irrigation with water (10 minutes), with the eyelids held open. A doctor (or eye specialist) should be consulted immediately.
Swallowing DON'T try to vomit, seek medical advice.
Medical measures product irritates the respiratory tracts and is mainly responsible for skin and respiratory tract sensitisations. Bronchial constriction and acute irritation symptomatic, a long-term medical care may be necessary.

5. Fire-Fighting-Measures

Extinguishing media CO₂, foam, dry powder, in case of larger fires, water spray should be used.
Further indications CO_x, NO_x, Isocyanatdämpfe und Spuren von HCN fire may cause
Respiratory protection with independent air supply required. Personal should be evacuated.
Contaminated water shouldn't get into the soil, ground water or rivers and lakes.

6. Accidental Release Measures

Protection clothes (see chapter 8), take up with wet, liquid absorbent for chemicals (e.g. dry sand, sawdust, absorbent for chemicals on phosphate hydrate base). After about 1 hour take off waste and,



because of CO₂ release, keep it wet and in the open air at a safe place for 7 – 14 days. Waste has to be decontaminated see chapter 13 “Instructions on Decontamination”

7. Handling and Storage

Handling observe the usual precautionary measures for chemicals. Avoid contact with skin. Work places must have an exhausting device, air circulation away from worker, maintenance of the systems regularly.

Storage keep container tightly closed and dry. Keep separated from foodstuffs. Storage temperature no less than 10° C and no more than 30° C.

VCI-storage class: 10

Fire and exposure protection exposure protection not required.

8. Exposure Controls / Personal Protection

Further specific information see chapter 15 „Regulatory information“. Technical protective measures on exposure controls see chapter 7 „Handling and storage“

Face protection required. In case of spray manufacture use air protection mask or combination filters A2-P2.

Eye protection goggles/face protection

Hand protection protective gloves made of

Natural rubber/latex	NR	(≥0,5mm)
Polychloroprene	CR	(≥0,5mm)
Nitrile rubber	NBR	(≥0,35mm)
Butyl rubber	IIR	(≥0,5mm)
Fluorinated rubber	FKM	(≥0,4mm)
Polyvinyl chloride	PVC	(≥0,5mm)

Keep working clothes separate. Wash hands before breaks and at end of work. Concerning contaminated protective clothes see chapter 13.

9. Physical and Chemical Properties

Form	liquid
Colour	brown
Odour	earthy, mouldy
Pour point °C	-24
Boiling point °C	n.b.
Flash point °C	>250
Ignition temperature °C	>500
Vapour pressure at 20°C mbar	1
Explosive limits	n.b.
Solubility in water	insoluble, reacts with water
pH value	n.a.
Density at 25° C g/cm ³	ca. 1,23
Viscosity at 25° C mPas	ca. 200

10. Stability and Reactivity

Hazardous decomposition products no hazardous decomposition products when stored and handled correctly.

Hazardous reactions exotherm with amines and alcohol, with water CO₂-development, in closed containers danger of pressure, danger of explosion.

Avoidable materials acids, bases, oxidants, copper, alloys and plated surfaces.



11. Toxicological Information

Diphenylmethandiisocyanate, Isomere and Homologue:

LD50 oral, rat (female) >15000 mg/kg

LC50 inhalant, rat 490 mg as aerosol /m³, 4h exposure concentration of the saturated vapour of Diphenylmethane-4,4'-diisocyanat (MDI) at 25°C 0,09 mg/m³

A long-term inhalation study with rats over a period of 2 years by mechanically produced aerosols (aerodynamic diameter 95% below 5 µm) of polymeric MDI (PMDI) and concentrations of 0,2, 1,0 and 6,0 mg PMDI/m³ led to an increased number of lung tumours, long-term inflammatory changes of the nose, respiratory tracts and lungs as well as yellow sediments in the respiratory tracts and lungs of those animals of the highest concentration group. The animals of the 1.0 mg/m³-group showed slight irritations and inflammatory modifications of nose, respiratory tracts and lungs but however no lung tumours and/or sediments. The animals of the 0.2-group didn't show any irritations; these concentration has been stated as "no effect level".

Effect on the eyes causes short-term weak reddening and swelling of the conjunctiva as well as weak reversible Cornea blurring. Product vapours of high concentration have an irritating effect on the eyes and mucous membrane.

Effect on the skin Irritating. In case of longer contact with the skin tanning and irritating effects possible.

Effect on the respiratory tract product vapours of high concentration have an irritating effect on eyes and mucous membrane.

Experiences / human irritation of the mucous membrane of nose, pharynx and lung, dryness of pharynx, pressure on the chest, temporarily combined with difficulty in breathing and headache. Problems and allergic reaction may be possible.

Sensitisation by inhalation possible.

There exist no proved tests on animals regarding sensitisation of the skin. (contradictory experimental results)

12. Ecological Information

Do not allow to escape into waters, wastewater or soil. (see chapter 15).

Not miscible with water. Combined with water converting on the interface by means of formation of carbon dioxide to a solid, highly smelting and insoluble reaction product (polyurea). Interface active substances (e.g. liquid soap) or water-soluble dissolver increase the reaction. As to the present experience polyurea is not degradable.

Information on Diphenylmethane diisocyanate, Isomer und Homologue

Biodegradability	0 %	Respiratory test	testing time 28 days
Acute fish toxicity	LC0 >1000 mg/l	Special tests Brachydanio rerio	testing time 96 h
Daphnien toxicity	EC50 1000 mg/l		testing time 24 h
Acute bacterial toxicity	EC50 100 mg/l	tested with activated sludge bacteria	testing time 3 h
Angaben zu Diphenylmethandiisocyanat, Isomeren und Homologen			

13. Disposal Considerations

Waste or residues of this product have to be disposed of in a suitable incinerator under compliance with



the relevant legislation. The consumer is incumbent on information.
After containers have been emptied as thoroughly as possible (e.g. by pouring, scraping or draining until „drip-Dry“) and removing the labels they can be sent to an appropriate collection point set up within the framework of existing take-back scheme of chemical industry.

14. Transport information

Not dangerous goods according to the international transportation as to RID/ADR, IMO and IATA.

15. Regulatory information

Labelling in accordance with the EEC directives 67/548 appendix I and corresponding alterations.

Chemical name of the substance	Diphenylmethanediisocyanate, Isomere und Homologue	
Symbol- / indication of danger	Xn, harmful	
Risk phrases (R-phrases)	R 20	Harmful by inhalation
	R 36/37/37	Irritating to eyes, respiratory system and skin
	R 42/43	May cause sensitization by inhalation and skin contact
Safety advices (S-phrases)	S 23	Do not breath vapours
	S 36/37	Wear suitable protective clothing and gloves
	S 38	In case of insufficient ventilation, wear suitable respiratory equipment
	S 45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

OEL Occupational Exposure Limits 0,005 ml/m³ (ppm) = 0,05 mg/m³

WGK Water endangering 1 (VwVwS)

AOX this product doesn't contains organically combined halogen

16. Other information

This Safety Data Sheet corresponds to chapter 3 of the instructions 91/155/EEC of the commission dd. 5th March, 1991 in order to lay down the details of a special information system for dangerous processes as to chapter 10 of the instruction 88/379/EEC of the commission (Ab1EG No. L 187 dd. 16th July, 1988, page 14) resp. all following changes and alterations.

Literatur:

- Safety Data Sheet of single components
- ISOPA MAP Newsletter Issue No. 1 – Febr. 1999
- ISOPA Guidelines for safe Loading/Unloading, Transportation and Storage of TDI and MDI

Alterations since the latest issue: ---

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties