



SAFETY DATA SHEET POLYURETHANE FOAM

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME POLYURETHANE FOAM
PRODUCT NO. MPU
EMPU500
ZE
APPLICATION Resin
SUPPLIER ELECTROLUBE. A division of
HK WENTWORTH LTD
ASHBY PARK, COALFIELD
WAY,
ASHBY DE LA ZOUCH,
LEICESTERSHIRE LE65 1JR
UNITED KINGDOM
+44 (0)1530 419600
+44 (0)1530 416640
info@hkw.co.uk
EMERGENCY TELEPHONE +44 (0)1530 419600 between 8.30am - 5.00pm Mon – Fri

2 HAZARDS IDENTIFICATION

Extremely flammable
Harmful by inhalation.
Irritating to eyes, respiratory system and skin.
May cause sensitisation by inhalation and skin contact.
Limited evidence of a carcinogenic effect.
Harmful: danger of serious damage to health by prolonged exposure through inhalation.
CLASSIFICATION (1999/45) Xn;R20, R48/20. Carc. Cat. 3;R40. R42/43. Xi;R36/37/38. F+;R12.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content %	Classification (67/548/EEC)
METHYLENEDIPHENYL DIISOCYANATE	247-714-0	26447-40-5	30-60%	Carc. Cat. 3;R40 Xn;R20,R48/20 Xi;R36/37/38 R42/43
tris(2-chloro-1-methylethyl)phosphate	237-158-7	13674-84-5	10-30%	R52/53.
DIMETHYL ETHER	204-065-8	115-10-6	5-10%	F+;R12

The Full Text for all R-Phrases is Displayed in Section 16

COMPOSITION COMMENTS

Ingredients not listed are classified as non-hazardous or at a concentration below reportable levels

4 FIRST-AID MEASURES

INHALATION

Move the exposed person to fresh air at once. Provide fresh air, warmth and rest, preferably in a comfortable upright sitting position. Get medical attention if any discomfort continues. If respiratory problems, artificial respiration/oxygen.

INGESTION

DO NOT INDUCE VOMITING! Immediately rinse mouth and provide fresh air. Get medical attention immediately!

SKIN CONTACT

Remove affected person from source of contamination. Immediately remove contaminated clothing. Wash the skin immediately with soap and water. Get medical attention promptly if symptoms occur after washing.

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EYE CONTACT

Promptly wash eyes with plenty of water while lifting the eye lids. Make sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes and get medical attention. Get medical attention if any discomfort continues.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Fire can be extinguished using: Water spray, fog or mist. Foam. Powder.

SPECIAL FIRE FIGHTING PROCEDURES

Avoid breathing fire vapours. Use pressurised air mask if product is involved in a fire.

UNUSUAL FIRE & EXPLOSION HAZARDS

Fire causes formation of toxic gases. Aerosol cans may explode in a fire.

SPECIFIC HAZARDS

Fire creates: Irritating gases/vapours/fumes of: Hydrogen cyanide (HCN). Nitrous gases (NOx).

6 ACCIDENTAL RELEASE MEASURES

SPILL CLEAN UP METHODS

When dealing with a spillage, please consult the section relating to suitable protective measures. Wear necessary protective equipment. Stop leak if possible without risk. Flush with plenty of water to clean spillage area. Do not contaminate water sources or sewer.

7 HANDLING AND STORAGE

USAGE PRECAUTIONS

Persons with impaired lung functions should not handle this preparation. Persons susceptible to allergic reactions should not handle this product. Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level.

STORAGE PRECAUTIONS

Keep in original container. Store in tightly closed original container in a dry, cool and well-ventilated place. Keep away from heat, sparks and open flame.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
DIMETHYL ETHER	WEL	400 ppm	766 mg/m ³	500 ppm	958 mg/m ³	
METHYLENEDIPHENYL DIISOCYANATE	WEL		0.02 mg/m ³ (Sen)		0.07 mg/m ³ (Sen)	

WEL = Workplace Exposure Limit.

INGREDIENT COMMENTS

WEL = Workplace Exposure Limits

PROTECTIVE EQUIPMENT



ENGINEERING MEASURES

Provide adequate general and local exhaust ventilation.

RESPIRATORY EQUIPMENT

Respiratory protection must be used if air contamination exceeds acceptable level.

HAND PROTECTION

Use protective gloves made of: Rubber, neoprene or PVC. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

EYE PROTECTION

Wear approved, tight fitting safety glasses where splashing is probable.

OTHER PROTECTION

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.

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HYGIENE MEASURES

DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Wash promptly if skin becomes contaminated. When using do not eat, drink or smoke.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Aerosol
ODOUR	Musty (mouldy).
SOLUBILITY	Insoluble in water
RELATIVE DENSITY	1.09 @ 25 °c
VISCOSITY	mPas @ 20 C

10 STABILITY AND REACTIVITY

STABILITY

Stable under normal temperature conditions.

CONDITIONS TO AVOID

Avoid heat, flames and other sources of ignition. Avoid contact with strong oxidisers. Reacts strongly with strong acids, bases, organic chemicals and certain metal combinations.

HAZARDOUS DECOMPOSITION PRODUCTS

High temperatures generate: Toxic gases/vapours/fumes of: Carbon dioxide (CO₂). Carbon monoxide (CO). Hydrogen cyanide (HCN).

11 TOXICOLOGICAL INFORMATION

TOXIC DOSE 1 - LD 50 >10000 mg/kg (oral rat)

TOXIC CONC. - LC 50 490 mg/l/4h (inh-rat)

GENERAL INFORMATION

No specific health warnings noted.

INHALATION

Harmful by inhalation. High concentrations of vapours may irritate respiratory system and lead to headache, fatigue, nausea and vomiting. May cause sensitisation by inhalation.

INGESTION

May cause stomach pain or vomiting.

SKIN CONTACT

Irritating to skin. Prolonged or repeated exposure may cause severe irritation.

EYE CONTACT

Irritating to eyes.

OTHER HEALTH EFFECTS

Carcinogen Category 3.

Name	METHYLENEDIPHENYL DIISOCYANATE
Toxic Dose 1 - LD 50	5000 mg/kg (oral rat)
Toxic Dose 2 - LD 50	5000 mg/kg (ipr-rat)
Toxic Conc. - LC 50	370 mg/l/4h (inh-rat)

12 ECOLOGICAL INFORMATION

ECOTOXICITY

Dangerous for the environment if discharged into watercourses.

Name	METHYLENEDIPHENYL DIISOCYANATE
LC 50, 96 Hrs, Fish mg/l	100
EC 50, 48 Hrs, Daphnia, mg/l	100

13 DISPOSAL CONSIDERATIONS

DISPOSAL METHODS

Dispose of waste and residues in accordance with local authority requirements.

14 TRANSPORT INFORMATION

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PROPER SHIPPING NAME	AEROSOLS
ENVIRONMENTALLY HAZARDOUS SUBSTANCE/MARINE POLLUTANT	No.
UN NO. ROAD	1950
ADR CLASS NO.	2
ADR CLASS	Class 2: Gases
ADR PACK GROUP	N/A
TUNNEL RESTRICTION CODE	(D)
ADR LABEL NO.	2.1
UN NO. SEA	1950
IMDG CLASS	2.1
IMDG PACK GR.	N/A
EMS	F-D, S-U
UN NO. AIR	1950
AIR CLASS	2.1
AIR PACK GR.	N/A

15 REGULATORY INFORMATION

LABELLING



Harmful



Extremely Flammable

CONTAINS METHYLENEDIPHENYL DIISOCYANATE

RISK PHRASES

R12	Extremely flammable.
R20	Harmful by inhalation.
R36/37/38	Irritating to eyes, respiratory system and skin.
R40	Limited evidence of a carcinogenic effect.
R42/43	May cause sensitisation by inhalation and skin contact.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.

SAFETY PHRASES

A1	Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.
A2	Do not spray on a naked flame or any incandescent material.
S2	Keep out of the reach of children.
S16	Keep away from sources of ignition - No smoking.
S23	Do not breathe vapour/spray.
S36/37	Wear suitable protective clothing and gloves.
S45	In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).
P4	Contains isocyanates. See information supplied by the manufacturer.

UK REGULATORY REFERENCES

Chemicals (Hazard Information & Packaging) Regulations.

The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments.

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ENVIRONMENTAL LISTING

Control of Pollution Act 1974. Control of Pollution (Special Waste Regulations) Act 1980. Rivers (Prevention of Pollution) Act 1961.

EU DIRECTIVES

Dangerous Substance Directive 67/548/EEC.

Dangerous Preparations Directive 1999/45/EC.

System of specific information relating to Dangerous Preparations. 2001/58/EC.

Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

GUIDANCE NOTES

Workplace Exposure Limits EH40.

16 OTHER INFORMATION

REVISION COMMENTS

Revised in accordance with CHIP3 and EU Directives 1999/45/EC and 2001/58/EC

ISSUED BY

Helen O'Reilly

REVISION DATE SEPTEMBER 2010

REV. NO./REPL. SDS 1

GENERATED

SDS NO. 11312

RISK PHRASES IN FULL

R12	Extremely flammable.
R20	Harmful by inhalation.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R36/37/38	Irritating to eyes, respiratory system and skin.
R40	Limited evidence of a carcinogenic effect.
R42/43	May cause sensitisation by inhalation and skin contact.

DISCLAIMER

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.