

SAFETY DATA SHEET THERMAL BONDING SYSTEM

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

PRODUCT NAME THERMAL BONDING SYSTEM
PRODUCT NO. ETBS-B
SUPPLIER ELECTROLUBE. A division of HK
WENTWORTH LTD
KINGSBURY PARK, MIDLAND
ROAD
SWADLINCOTE
DERBYSHIRE, DE11 0AN
UNITED KINGDOM
+44(0)1283 222 111
+44(0)1283 550 177

2 HAZARDS IDENTIFICATION

Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Possible risk of irreversible effects. May cause sensitisation by skin contact. May cause cancer. Irritating to eyes and skin.

CLASSIFICATION Carc 2;R45. Xn;R68/20/21/22. Mut 3;R68. Xi;R36/38. R43. N;R50/53.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content	Classification
4,4'-METHYLENEDIANILINE	202-974-4	101-77-9	1-5%	Carc. Cat. 2;R45 Muta. Cat. 3;R68 T;R39/23/24/25 Xn;R48/20/21/22 R43 N;R51/53
TRIETHYLENETETRAMINE	203-950-6	112-24-3	5-10%	C;R34 Xn;R21 R43 R52/53
ZINC OXIDE	215-222-5	1314-13-2	30-60%	N;R50/53

The Full Text for all R-Phrases are 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 rest, warmth and fresh air. Get medical attention if any discomfort continues. Perform artificial respiration if breathing has stopped. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention.

INGESTION

DO NOT INDUCE VOMITING! NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Provide rest, warmth and fresh air. Get medical attention immediately!

SKIN CONTACT

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

EYE CONTACT

Remove victim immediately from source of exposure. Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Fire can be extinguished using: Foam. Dry chemicals, sand, dolomite etc. DO NOT use water if avoidable.

6 ACCIDENTAL RELEASE MEASURES

SPILL CLEAN UP METHODS

Wear necessary protective equipment. Stop leak if possible without risk. DO NOT touch spilled material. Absorb in vermiculite, dry sand or earth and place into containers.

7 HANDLING AND STORAGE

THERMAL BONDING SYSTEM

USAGE PRECAUTIONS

Avoid spilling, skin and eye contact. Keep away from heat, sparks and open flame. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level.

STORAGE PRECAUTIONS

Store in tightly closed original container in a dry, cool and well-ventilated place. Keep in original container.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	Std	LT - ppm	LT - mg/m3	ST - ppm	ST - mg/m3
4,4'-METHYLENEDIANILINE	WEL	0.01 ppm(Sk)	0.08 mg/m3(Sk)		

INGREDIENT COMMENTS

WEL = Workplace Exposure Limits

PROTECTIVE EQUIPMENT



ENGINEERING MEASURES

Provide adequate general and local exhaust ventilation. Provide adequate ventilation. Observe Workplace Exposure Limits and minimise the risk of inhalation of vapours.

RESPIRATORY EQUIPMENT

In case of inadequate ventilation and work of brief duration, use suitable respiratory equipment.

HAND PROTECTION

Protective gloves must be used if there is a risk of direct contact or splash. 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 safety goggles.

OTHER PROTECTION

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

HYGIENE MEASURES

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

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Paste		
COLOUR	Cream		
SOLUBILITY	Immiscible with water		
RELATIVE DENSITY	@ °c	VAPOUR PRESSURE	@ °c
VISCOSITY	@ °c	FLASH POINT (°C)	>100

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.

HAZARDOUS DECOMPOSITION PRODUCTS

Fire creates: Acrid smoke/fumes of: Carbon monoxide (CO). Carbon dioxide (CO2).

11 TOXICOLOGICAL INFORMATION

INHALATION

Harmful: possible risk of irreversible effects through inhalation.

INGESTION

Harmful: possible risk of irreversible effects if swallowed. May cause stomach pain or vomiting.

THERMAL BONDING SYSTEM

SKIN CONTACT

Harmful: possible risk of irreversible effects in contact with skin. May cause sensitisation by skin contact.

EYE CONTACT

Irritating to eyes.

HEALTH WARNINGS

Known or suspected carcinogen for humans. Known or suspected mutagen.

Other Health Effects

Carcinogen Category 2. Mutagen Category 3.

12 ECOLOGICAL INFORMATION

ECOTOXICITY

Dangerous for the environment if discharged into watercourses.

13 DISPOSAL CONSIDERATIONS

DISPOSAL METHODS

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

14 TRANSPORT INFORMATION



UK ROAD CLASS	8		
PROPER SHIPPING NAME	AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S (TRIETHYLENETETRAMINE)		
UN NO. ROAD	2735	UK ROAD PACK GR.	III
ADR CLASS NO.	8	ADR CLASS	Class 8: Corrosive substances.
ADR PACK GROUP	III	HAZARD No. (ADR)	80
ADR LABEL NO.	8	HAZCHEM CODE	2X
CEFIC TEC(R) NO.	80GC7-II+III	RID CLASS NO.	8
RID PACK GROUP	III	UN NO. SEA	2735
IMDG CLASS	8	IMDG PACK GR.	III
EMS	F-A, S-B	MFAG	See Guide
MARINE POLLUTANT	No.	UN NO. AIR	2735
AIR CLASS	8	AIR PACK GR.	III

15 REGULATORY INFORMATION

LABELLING



Toxic



Dangerous for the environment

CONTAINS

4,4'-METHYLENEDIANILINE
TRIETHYLENETETRAMINE

RISK PHRASES

R43	May cause sensitisation by skin contact.
R45	May cause cancer.
R36/38	Irritating to eyes and skin.
R68/20/21/22	Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.

THERMAL BONDING SYSTEM

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R68 Possible risk of irreversible effects.

SAFETY PHRASES

S25 Avoid contact with eyes.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).
S53 Avoid exposure - obtain special instructions before use.
P11 Restricted to professional users.

UK REGULATORY REFERENCES

Chemicals (Hazard Information & Packaging) Regulations. The Control of Substances Hazardous to Health Regulations 1988.

ENVIRONMENTAL LISTING

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

EU DIRECTIVES

System of specific information relating to Dangerous Preparations. 2001/58/EC. Dangerous Substance Directive 67/548/EEC. Dangerous Preparations Directive 1999/45/EC.

APPROVED CODE OF PRACTICE

Classification and Labelling of Substances and Preparations Dangerous for Supply. Safety Data Sheets for Substances and Preparations.

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 JUNE 2007

REV. NO./REPL. SDS GENERATED 4

SDS NO. 11155

RISK PHRASES IN FULL

R21 Harmful in contact with skin.
R34 Causes burns.
R39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
R43 May cause sensitisation by skin contact.
R45 May cause cancer.
R48/20/21/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R68 Possible risk of irreversible effects.

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.