



## SAFETY DATA SHEET THERMAL BONDING SYSTEM

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

**PRODUCT NAME** THERMAL BONDING SYSTEM  
**PRODUCT NO.** TBS-B  
ETBS20S  
ETBS01K  
ZE  
**APPLICATION** Adhesive  
**SUPPLIER** ELECTROLUBE. A division of  
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### 2 HAZARDS IDENTIFICATION

Causes severe burns.  
May cause sensitisation by skin contact.  
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
**CLASSIFICATION (1999/45)** C;R35. R43. N;R50/53.

#### ENVIRONMENT

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point. Use appropriate containment to avoid environmental contamination. Avoid release to the environment. Refer to special instructions/safety data sheets. Dispose of waste and residues in accordance with local authority requirements.

### 3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content %	Classification (67/548/EEC)
ZINC OXIDE	215-222-5	1314-13-2	30-60%	N;R50/53
Methylene Di(cyclohexylamine)	217-168-8	1761-71-3	10-30%	Xn;R22. C;R35. Xi;R37. R43.
TRIETHYLENETETRAMINE	203-950-6	112-24-3	5-10%	C;R34 Xn;R21 R43 R52/53

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

#### NOTES TO THE PHYSICIAN

Treat symptomatically

#### INHALATION

Move the exposed person to fresh air at once. Get medical attention. Provide rest, warmth and fresh air. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen.

## THERMAL BONDING SYSTEM

### INGESTION

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

### SKIN CONTACT

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

### EYE CONTACT

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Get medical attention immediately. Continue to rinse.

## 5 FIRE-FIGHTING MEASURES

### EXTINGUISHING MEDIA

Use fire-extinguishing media appropriate for surrounding materials.

### SPECIFIC HAZARDS

Fire creates: Toxic gases/vapours/fumes of: Carbon monoxide (CO). Carbon dioxide (CO2).

## 6 ACCIDENTAL RELEASE MEASURES

### ENVIRONMENTAL PRECAUTIONS

Do not allow ANY environmental contamination. Do not discharge onto the ground or into water courses.

### SPILL CLEAN UP METHODS

DO NOT touch spilled material. Absorb in vermiculite, dry sand or earth and place into containers. Flush with plenty of water to clean spillage area. Do not contaminate water sources or sewer.

## 7 HANDLING AND STORAGE

### USAGE PRECAUTIONS

Avoid spilling, skin and eye contact.

### STORAGE PRECAUTIONS

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

### STORAGE CLASS

Corrosive storage.

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
ZINC OXIDE	WEL		5 mg/m3		10 mg/m3	

WEL = Workplace Exposure Limit.

### PROTECTIVE EQUIPMENT



### ENGINEERING MEASURES

Must not be handled in confined space without sufficient ventilation.

### RESPIRATORY EQUIPMENT

No specific recommendation made, but respiratory protection must be used if the general level exceeds the recommended occupational exposure limit.

### HAND PROTECTION

Protective gloves should 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 chemical safety goggles where eye exposure is reasonably probable.

### OTHER PROTECTION

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

## THERMAL BONDING SYSTEM

### 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 with soap & water if skin becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

### 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Liquid
COLOUR	Not known.
ODOUR	Characteristic
RELATIVE DENSITY	0.9 @ 20 °C (68 F)
VISCOSITY	0 mPas @ 20 °C (68 F)
FLASH POINT (°C)	Not noted.

### 10 STABILITY AND REACTIVITY

#### STABILITY

Stable under normal temperature conditions.

#### HAZARDOUS DECOMPOSITION PRODUCTS

Fire creates: Toxic gases/vapours/fumes of: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

### 11 TOXICOLOGICAL INFORMATION

#### TOXICOLOGICAL INFORMATION

No information available.

#### INHALATION

Harmful by inhalation. Irritating to respiratory system.

#### INGESTION

Harmful if swallowed.

#### SKIN CONTACT

Causes burns. May cause sensitisation by skin contact.

#### EYE CONTACT

Spray and vapour in the eyes may cause irritation and smarting.

#### HEALTH WARNINGS

Prolonged inhalation of high concentrations may damage respiratory system.

### 12 ECOLOGICAL INFORMATION

#### ECOTOXICITY

The product contains a substance which is very toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

### 13 DISPOSAL CONSIDERATIONS

#### DISPOSAL METHODS

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

### 14 TRANSPORT INFORMATION

#### GENERAL

For US Domestic transportation this product is classified as a Consumer Commodity. For International transportation this product is classified as UN1760 CORROSIVE LIQUID



PROPER SHIPPING NAME	CORROSIVE LIQUID, N.O.S. (TRIETHYLENETETRAMINE, ZINC OXIDE)
PROPER SHIPPING NAME	CONSUMER COMMODITY
UN NO. ROAD	1760
ADR CLASS NO.	8

## THERMAL BONDING SYSTEM

ADR CLASS	Class 8: Corrosive substances.
ADR PACK GROUP	II
HAZARD No. (ADR)	80
ADR LABEL NO.	8
HAZCHEM CODE	2X
UN NO. SEA	1760
IMDG CLASS	8
IMDG PACK GR.	II
EMS	F-A, S-B
UN NO. AIR	1760
AIR CLASS	8
AIR PACK GR.	II

### 15 REGULATORY INFORMATION

#### LABELLING



Corrosive



Dangerous for the environment

**CONTAINS** Methylene Di(cyclohexylamine)  
TRIETHYLENETETRAMINE

#### RISK PHRASES

R35	Causes severe burns.
R43	May cause sensitisation by skin contact.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### SAFETY PHRASES

S25	Avoid contact with eyes.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
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).
S57	Use appropriate containment to avoid environmental contamination.
S60	This material and its container must be disposed of as hazardous waste.
S61	Avoid release to the environment. Refer to special instructions/safety data sheets.

#### UK REGULATORY REFERENCES

Chemicals (Hazard Information & Packaging) Regulations.

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

#### 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.

## THERMAL BONDING SYSTEM

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.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

### 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 NOVEMBER 2010

REV. NO./REPL. SDS 1

GENERATED

SDS NO. 12670

### RISK PHRASES IN FULL

R34	Causes burns.
R35	Causes severe burns.
R22	Harmful if swallowed.
R21	Harmful in contact with skin.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R37	Irritating to respiratory system.
R43	May cause sensitisation by skin contact.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 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.