

Three Bond 2088E-R

Material number TB2088E-R

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Trade name: Three Bond 2088E-R

1.2 Relevant identified uses of the substance or mixture and uses advised againstGeneral use: Adhesive
For industrial purposes only**1.3 Details of the supplier of the safety data sheet**Company name: Three Bond GmbH
Street/POB-No.: Heerdter Lohweg 55
Postal Code, city: 40549 Duesseldorf
WWW: www.threebond.de
E-mail: info@threebond.de
Telephone: 0049-(0)211-530641-10
Telefax: 0049-(0)211-530641-41
Dept. responsible for information:
Telephone: 0049-(0)211-530641-0, Email: msds@threebond.deAdditional information: Manufacturer:
Three Bond Co., Ltd.
1456 Hazama-cho Hachioji-shi
193-8533 Tokyo, Japan
Phone +81-(0)426-61-1333
Fax: +81-(0)426-69-7235**1.4 Emergency telephone number****GIZ-Nord, Göttingen, Germany,
Telephone: +49 551-19240****SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification according to EC regulation 1272/2008 (CLP)**Skin Irrit. 2; H315 Causes skin irritation.
Eye Irrit. 2; H319 Causes serious eye irritation.
Skin Sens. 1; H317 May cause an allergic skin reaction.
Aquatic Chronic 2; H411 Toxic to aquatic life with long lasting effects.**2.2 Label elements****Labelling (CLP)**Signal word: **Warning**Hazard statements: H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.

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Precautionary statements:

P261	Avoid breathing vapours.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P391	Collect spillage.

Special labelling

Text for labelling: Contains 4,4'-Methylene-bis-(N,N-bis-(2,3-epoxypropyl)-aniline).
Contains epoxy containing compounds.

2.3 Other hazards

No risks worthy of mention.

Results of PBT and vPvB assessment:

No data available

SECTION 3: Composition / information on ingredients

3.1 Substances: not applicable

3.2 Mixtures

Hazardous ingredients:

Ingredient	Designation	Content	Classification
EC No. - CAS 31305-94-9		40 - 60 %	Skin Irrit. 2; H315. Eye Irrit. 2; H319. Skin Sens. 1; H317. Aquatic Chronic 2; H411.
EC No. 500-033-5 CAS 25068-38-6	Reaction product: Bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <=700)	40 - 50 %	Skin Irrit. 2; H315. Eye Irrit. 2; H319. Skin Sens. 1; H317. Aquatic Chronic 2; H411.
EC No. 500-006-8 CAS 9003-36-5	Bisphenol F Epoxy Resin	10 - 20 %	Skin Irrit. 2; H315. Eye Irrit. 2; H319. Skin Sens. 1; H317. Aquatic Chronic 2; H411.

Full text of H- and EUH-statements: see section 16.

Customs tariff number: 3907 30 00

SECTION 4: First aid measures**4.1 Description of first aid measures**

In case of inhalation:	Provide fresh air. Seek medical attention if irritation persists.
Following skin contact:	Take off immediately all contaminated clothing. After contact with skin, wash immediately with soap and plenty of water. Seek medical attention if problems persist.
After eye contact:	Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.
After swallowing:	Do not induce vomiting. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

No data available

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing media:

Water spray jet, foam, extinguishing powder, carbon dioxide

5.2 Special hazards arising from the substance or mixtureIn case of fire may be liberated: Nitrogen oxides (NO_x), hydrogen chloride, Carbon monoxide and carbon dioxide.**5.3 Advice for firefighters**

Special protective equipment for firefighters:

Wear self-contained breathing apparatus.

Additional information:

Do not allow water used to extinguish fire to enter drains, ground or waterways.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**Wear appropriate protective equipment. Avoid contact with skin, eyes, and clothing.
Keep unprotected people away. Provide adequate ventilation.**6.2 Environmental precautions**

Do not allow to enter into ground-water, surface water or drains.

6.3 Methods and material for containment and cleaning up

Collect with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents, or sawdust) and place in closed containers for disposal.

6.4 Reference to other sections

Refer additionally to section 8 and 13.

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Advices on safe handling: Provide good ventilation in the work area.

Avoid contact with skin and eyes.

Precautions against fire and explosion:

Keep away from sources of ignition - No smoking.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

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

Storage class:

10 = Combustible liquids, unless storage class 3

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Additional information: Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Handle in accordance with good industrial hygiene and safety practice.

Personal protection equipment

Occupational exposure controls

Respiratory protection: Provide adequate ventilation.

Hand protection: Protective gloves according to EN 374.

Glove material: butyl caoutchouc (butyl rubber)-Breakthrough time: >480 min.

Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: Tightly sealed safety glasses according to EN 166.

Body protection: Wear closed work clothing.

General protection and hygiene measures:

Wash hands before breaks and after work.

Avoid contact with skin and eyes.

When using do not eat, drink or smoke.

Have eye wash bottle or eye rinse ready at work place.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Form: liquid Colour: yellow
Odour:	weak
Odour threshold:	No data available
pH value:	6
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	> 200 °C
Flash point/flash point range:	210 °C (DIN 51755)
Evaporation rate:	No data available
Flammability:	No data available
Explosion limits:	LEL (Lower Explosion Limit): n.a. UEL (Upper Explosive Limit): n.a.
Vapour pressure:	at 20 °C: ≤ 0.01 hPa (DIN 51754)
Vapour density:	No data available
Density:	at 20 °C: 1.2 g/mL (DIN 51757)
Water solubility:	at 20 °C: insoluble
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	none
Decomposition temperature:	No data available
Viscosity, dynamic:	at 20 °C: 40 Pa*s
Explosive properties:	none
Oxidizing characteristics:	No data available

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9.2 Other information

Ignition temperature: > 450 °C (DIN 51794)

SECTION 10: Stability and reactivity**10.1 Reactivity**

refer to 10.3

10.2 Chemical stability

Product is stable under normal storage conditions.

10.3 Possibility of hazardous reactions

No dangerous reactions with proper and specified storage and handling

10.4 Conditions to avoid

Keep away from heat.

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition productsIn case of fire may be liberated: Nitrogen oxides (NO_x), hydrogen chloride, Carbon monoxide and carbon dioxide.

Thermal decomposition: No data available

SECTION 11: Toxicological information**11.1 Information on toxicological effects**

Acute toxicity: LD50 Rat, oral: > 5000 mg/kg

Toxicological effects: Acute toxicity (oral): Lack of data.

Acute toxicity (dermal): Lack of data.

Acute toxicity (inhalative): Lack of data.

Skin corrosion/irritation: Skin Irrit. 2; H315 = Causes skin irritation.

Serious eye damage/irritation: Eye Irrit. 2; H319 = Causes serious eye irritation.

Sensitisation to the respiratory tract: Lack of data.

Skin sensitisation: Skin Sens. 1; H317 = May cause an allergic skin reaction.

Germ cell mutagenicity/Genotoxicity: Lack of data.

Carcinogenicity: Lack of data.

Reproductive toxicity: Lack of data.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Lack of data.

Specific target organ toxicity (repeated exposure): Lack of data.

Aspiration hazard: Lack of data.

General remarks

sensitization: May cause sensitization by skin contact.



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU) No. 2015/830

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SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Water Hazard Class: 2 = obviously hazardous to water

12.2 Persistence and degradability

Further details: No data available

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:
No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

General information: Do not allow to enter into ground-water, surface water or drains.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste key number: 08 04 09* = Waste from bonding agents and sealing compounds, which contain organic solvents or other dangerous components.
MFSU = manufacture, formulation, supply and use
* = Evidence for disposal must be provided.

Recommendation: Incinerate according to applicable local, state and federal regulations.

Contaminated packaging

Recommendation: Waste key number:
150102 Plastic container
150104 Packages of metal
Dispose of waste according to applicable legislation.
Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

14.1 UN number

ADR/RID, ADN, IMDG, IATA-DGR:
UN 3082

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14.2 UN proper shipping nameADR/RID, ADN: UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(and bisphenol A epoxy resin)IMDG, IATA-DGR: UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(4,4'-Methylene-bis-(N,N-bis-(2,3-epoxypropyl)-aniline and bisphenol A epoxy resin)**14.3 Transport hazard class(es)**

ADR/RID, ADN: Class 9, Code: M6

IMDG: Class 9, Subrisk -

IATA-DGR: Class 9

**14.4 Packing group**ADR/RID, ADN, IMDG, IATA-DGR:
III**14.5 Environmental hazards**

Marine pollutant - IMDG: yes

Marine pollutant - ADN: yes

14.6 Special precautions for user**Land transport (ADR/RID)**

Warning board: ADR/RID: Kemmler-number 90, UN number UN 3082

Hazard label: 9

Special provisions: 274 335 375 601

Limited quantities: 5 L

EQ: E1

Contaminated packaging - Instructions: P001 IBC03 LP01 R001

Contaminated packaging - Special provisions:

PP1

Special provisions for packing together: MP19

Portable tanks - Instructions: T4

Portable tanks - Special provisions: TP1 TP29

Tank coding: LGBV

Tunnel restriction code: -

Inland waterway craft (ADN)

Hazard label: 9

Special provisions: 274 335 375 601

Limited quantities: 5 L

EQ: E1

Transport permitted: T

Equipment necessary: PP

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Sea transport (IMDG)

EmS: F-A, S-F
Special provisions: 274, 335, 969
Limited quantities: 5 L
Excepted quantities: E1
Contaminated packaging - Instructions: P001, LP01
Contaminated packaging - Provisions: PP1
IBC - Instructions: IBC03
IBC - Provisions: -
Tank instructions - IMO: -
Tank instructions - UN: T4
Tank instructions - Provisions: TP2, TP29
Stowage and handling: Category A.
Properties and observations: -
Segregation group: none

Air transport (IATA)

Hazard label: Miscellaneous
Excepted Quantity Code: E1
Passenger and Cargo Aircraft: Ltd.Qty.: Pack.Instr. Y964 - Max. Net Qty/Pkg. 30 kg G
Passenger and Cargo Aircraft: Pack.Instr. 964 - Max. Net Qty/Pkg. 450 L
Cargo Aircraft only: Pack.Instr. 964 - Max. Net Qty/Pkg. 450 L
Special provisions: A97 A158 A197
Emergency Response Guide-Code (ERG): 9L

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

No data available

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations - Germany**

Storage class: 10 = Combustible liquids, unless storage class 3

Water Hazard Class: 2 = obviously hazardous to water

Information on working limitations:

Observe employment restrictions concerning young persons.

National regulations - EC member states**Labelling of packaging with <= 125mL content**

Signal word:

Warning

Hazard statements: H317 May cause an allergic skin reaction.

Precautionary statements:

P261

Avoid breathing vapours.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P312

Call a POISON CENTER/doctor if you feel unwell.

15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.



SAFETY DATA SHEET

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SECTION 16: Other information

Further information

Wording of the H-phrases under paragraph 2 and 3:

H315 = Causes skin irritation.

H317 = May cause an allergic skin reaction.

H319 = Causes serious eye irritation.

H411 = Toxic to aquatic life with long lasting effects.

Reason of change: Changes in section 2: Labelling (P-phrases: EU, ATP 8)

Date of first version: 7/14/2004

Department issuing data sheet

Contact person: see section 1: Dept. responsible for information

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.