

Issue date 27-Sep-2021

Revision Date 27-Sep-2021

Revision Number 1

## 1. Identification

**Product Name** ThreeBond 2088E -Base resin-

### Recommended use of the chemical and restrictions on use

**Recommended use** Adhesive, Sealant

### Details of the supplier of the safety data sheet

**Supplier** ThreeBond Fine Chemical Co., Ltd.  
1-1 Oyama-cho, Midori-ku, Sagamihara-shi, Kanagawa 252-0146 Japan

**Emergency telephone number** +81-42-703-7126 (Inquiries regarding SDS content)  
+81-42-670-5333 (Inquiries regarding the product or SDS claim)

## 2. Hazard(s) identification

### GHS - Classification

Acute toxicity - Oral	Classification not possible
Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Gases)	Classification not applicable
Acute toxicity - Inhalation (Vapors)	Classification not possible
Acute toxicity - Inhalation (Dusts/Mists)	Classification not possible
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2B
Respiratory sensitization	Classification not possible
Skin sensitization	Category 1
Germ cell mutagenicity	Classification not possible
Carcinogenicity	Classification not possible
Reproductive toxicity	Classification not possible
Effects on or via lactation	No effects on or via lactation
Specific target organ toxicity (single exposure)	Classification not possible
Specific target organ toxicity (repeated exposure)	Classification not possible
Aspiration hazard	Classification not possible
Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1
Ozone	Classification not possible

### GHS label elements



**Signal word**

Warning

### **Hazard statements**

H312 - Harmful in contact with skin  
H315 - Causes skin irritation  
H320 - Causes eye irritation  
H317 - May cause an allergic skin reaction

H410 - Very toxic to aquatic life with long lasting effects

**Precautionary statements****Prevention**

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

Wash face, hands and any exposed skin thoroughly after handling.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Contaminated work clothing should not be allowed out of the workplace.

Avoid release to the environment.

**Response**

Specific treatment (see section 4 on this SDS).

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of water and soap.

Call a POISON CENTER or doctor if you feel unwell.

Take off contaminated clothing and wash it before reuse.

If skin irritation or rash occurs: Get medical advice/attention.

Collect spillage.

**Storage**

Not applicable.

**Disposal**

Dispose of contents/container to an approved waste disposal plant.

**Other hazards**

No information available.

**3. Composition/information on ingredients****Pure substance/mixture**

Mixture

Chemical name	CAS No	Weight-%	ENCS Number	ISHL No
Bisphenol A-epichlorohydrin polymer	25068-38-6	35-<45	(7)-1283	(7)-1283
Bisphenol F type epoxy resin, Other epoxy resin	-	55-<65	-	-

**Pollutant Release and Transfer Registry (PRTR)**

Not applicable

**Industrial Safety and Health Law**

ISHL Notifiable Substances

Not applicable

Harmful Substances Whose Names Are to be Indicated on the Label

Not applicable

**Poisonous and Deleterious Substances Control Law**

Not applicable

**Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. (CSCL)**

Priority assessment chemical substance

Chemical name	Chemical Substances Control Law
Bisphenol A-epichlorohydrin polymer	Priority assessment chemical substance

**4. First-aid measures****General advice**

Show this safety data sheet to the doctor in attendance.

<b>In case of inhalation</b>	Remove to fresh air. Get medical attention immediately if symptoms occur.
<b>In case of skin contact</b>	May cause an allergic skin reaction. Wash off immediately with soap and plenty of water for at least 15 minutes. If symptoms persist, call a physician.
<b>In case of eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
<b>In case of ingestion</b>	Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.
<b>Most important symptoms/effects, acute and delayed</b>	Itching. Rashes. Hives.
<b>Self-protection of the first aider</b>	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8). Avoid contact with skin, eyes or clothing.
<b>Note to physicians</b>	May cause sensitization in susceptible persons. Treat symptomatically.

## 5. Fire-fighting measures

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Unsuitable extinguishing media</b>	Do not scatter spilled material with high pressure water streams.
<b>Specific hazards arising from the chemical</b>	Product is or contains a sensitizer. May cause sensitization by skin contact.
<b>Flammable properties</b>	Containers may explode when heated.
<b>Special extinguishing media</b> <b>Large Fire</b>	Cool container with water spray. CAUTION: Use of water spray when fighting fire may be inefficient.
<b>Special protective equipment and precautions for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
<b>For emergency responders</b>	Use personal protection recommended in Section 8.
<b>Environmental precautions</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Pick up and transfer to properly labeled containers.
<b>Prevention of secondary hazards</b>	Clean contaminated objects and areas thoroughly observing environmental regulations.
<b>Other information</b>	Refer to protective measures listed in Sections 7 and 8.

## 7. Handling and storage

### Handling

**Advice on safe handling** Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Take equipment measures listed in Section 8. Wear protection gear.

**Hygiene Measures** Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

### Storage

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.

## 8. Exposure controls/personal protection

**Engineering controls** Showers  
Eyewash stations  
Ventilation systems.

**Exposure guidelines** Not applicable.

**Biological occupational exposure limits** Not applicable

**Environmental exposure controls** Install local ventilation or seal source of substances. Install safety shower, hand wash, and eye wash station. Clearly indicate the location.

### Personal protective equipment

**Respiratory protection** In case of inadequate ventilation wear respiratory protection.

**Hand protection** Wear suitable gloves. Impervious gloves.

**Eye/face protection** Wear safety glasses with side shields (or goggles). None required for consumer use.

**Skin and body protection** Wear suitable protective clothing. Long sleeved clothing.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

**Physical state** Liquid  
**Color** Transparent Light yellow  
**Odor** Slight odor

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>Melting point / freezing point</b>	no data available	
<b>Boiling point / boiling range</b>	no data available	
<b>Flammability</b>	no data available	
<b>Upper/lower flammability or explosive limits</b>	no data available	
<b>Upper flammability or explosive</b>		

limits	
Lower flammability or explosive limits	
Flash point	255 °C
Autoignition temperature	no data available
Decomposition temperature	no data available
pH	no data available
Kinematic viscosity	no data available
Dynamic viscosity	40 Pa · s
Water solubility	Slightly soluble
Solubility(ies)	no data available
Partition Coefficient (n-octanol/water)	no data available
Vapor pressure	no data available
Relative vapor density	no data available
Relative density	1.19
Particle characteristics	
Particle Size	no data available
Particle Size Distribution	no data available

## 10. Stability and reactivity

Stability	Stable under normal conditions.
Possibility of hazardous reactions	React vigorously with strong oxidant, strong Lewis acid, strong inorganic base, and organic base, and could cause fire.
Conditions to avoid	The curing reaction is accompanied by a rapid heating. If large amount of the agent is mixed with the curing agent at one time, carbonization of the reactants along with the generation of toxic gases may cause degradation.
Incompatible materials	Bases, OXIDIZERS.
Hazardous decomposition products	May generate harmful gas by incineration.

## 11. Toxicological information

### Acute toxicity

#### Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	7,333.30 mg/kg
ATEmix (dermal)	2,000.00 mg/kg

#### Unknown acute toxicity

85 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Bisphenol A-epichlorohydrin polymer	= 11400 mg/kg ( Rat )	-	-

Abbreviations and acronyms

Rat: Rat

Symptoms	Itching. Rashes. Hives. Redness. May cause redness and tearing of the eyes.
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#### Product Information

<b>Ingestion</b>	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
<b>Inhalation</b>	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
<b>Skin contact</b>	May cause sensitization by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). Causes skin irritation.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available. Irritating to eyes. (based on components). Causes eye irritation.
<b>Skin corrosion/irritation</b>	Classification based on data available for ingredients. Irritating to skin.
<b>Serious eye damage/eye irritation</b>	Classification based on data available for ingredients. Irritating to eyes.
<b>Respiratory or skin sensitization</b>	May cause sensitization by skin contact.
<b>Germ cell mutagenicity</b>	Based on available data, the classification criteria are not met. Classification not possible.
<b>Carcinogenicity</b>	Based on available data, the classification criteria are not met. Classification not possible.
<b>Reproductive toxicity</b>	Based on available data, the classification criteria are not met. Classification not possible.
<b>STOT - single exposure</b>	Based on available data, the classification criteria are not met. Classification not possible.
<b>STOT - repeated exposure</b>	Based on available data, the classification criteria are not met. Classification not possible.
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met. Classification not possible.

## 12. Ecological information

<b>Ecotoxicity</b>	Very toxic to aquatic life with long lasting effects.
<b>Percentage for unknown hazards</b>	0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.
<b>Persistence and degradability</b>	No information available.
<b>Bioaccumulation</b>	No information available.

<b>Mobility in soil</b>	No information available.
<b>Hazardous to the ozone layer</b>	Classification not possible. Based on available data, the classification criteria are not met.
<b>Other adverse effects</b>	No information available.
<b>Endocrine Disruptor Information</b>	

### 13. Disposal considerations

<b>Waste from residues/unused products</b>	Dispose of in accordance with national, state and local regulations. Consult industrial waste management companies for waste. Do not release this product to natural environment nor reclaim.
<b>Contaminated packaging</b>	Dispose containers as same as residual of this product.

### 14. Transport information

#### IMDG

<b>UN number or ID number</b>	UN3082
<b>UN proper shipping name</b>	Environmentally hazardous substance, liquid, n.o.s.
<b>Description</b>	UN3082, Environmentally hazardous substance, liquid, n.o.s. 9, III, Marine pollutant
<b>Transport hazard class(es)</b>	9
<b>Packing group</b>	III
<b>Marine pollutant</b>	P
<b>EmS-No</b>	F-A, S-F
<b>Special Provisions</b>	274, 335, 969

#### ADR

<b>UN/ID No.</b>	UN3082
<b>Proper shipping name</b>	Environmentally hazardous substance, liquid, n.o.s.
<b>Description</b>	UN3082, Environmentally hazardous substance, liquid, n.o.s.9, III, (-)
<b>Transport hazard class(es)</b>	9
<b>Packing group</b>	III
<b>Environmental hazard</b>	Yes
<b>ERG code</b>	9L
<b>Special provisions</b>	274, 335, 601, 375

#### IATA

<b>UN/ID No.</b>	UN3082
<b>Proper shipping name</b>	Environmentally hazardous substance, liquid, n.o.s.
<b>Description</b>	UN3082, Environmentally hazardous substance, liquid, n.o.s. 9, III
<b>Transport hazard class(es)</b>	9
<b>Packing group</b>	III
<b>Special provisions</b>	A97, A158, A197

#### Japanese regulations

<b>UN Number</b>	UN3082
<b>Proper shipping name</b>	Environmentally hazardous substance, liquid, n.o.s.
<b>Description</b>	UN3082, Environmentally hazardous substance, liquid, n.o.s. 9, III
<b>Hazard class</b>	9
<b>Packing group</b>	III
<b>Special provisions</b>	274, 335

### 15. Regulatory information

#### National regulations

**Pollutant Release and Transfer Registry (PRTR)**

Not applicable

**Industrial Safety and Health Law**

Not applicable

**ISHL Notifiable Substances**

Not applicable

**Poisonous and Deleterious Substances Control Law**

Not applicable

**Explosives Control Law**

Not applicable

**High Pressure Gas Safety Act**

Not applicable

**Fire Service Law:**

Designated Combustible Substances - Combustible liquids

**Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. (CSCL)**

Priority assessment chemical substance

Chemical name	CAS No	Chemical Substances Control Law
Bisphenol A-epichlorohydrin polymer	25068-38-6	Priority assessment chemical substance

**Ship (Marine Transportation) Safety Act**

See section 14 for more information

**Civil Aeronautics Act**

See section 14 for more information

## 16. Other information

**Revision Date**

27-Sep-2021

**Key or legend to abbreviations and acronyms used in the safety data sheet**

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	Ceiling	Maximum limit value
*	Skin designation	+	Sensitizers

**Key literature references and sources for data**

JIS Z 7252:2019 Classification of chemicals based on "Globally Harmonized System of Classification and Labelling of Chemicals (GHS)". JIS Z 7253:2019 Hazard communication of chemicals based on GHS-Labeling and Safety Data Sheet (SDS).

**Disclaimer**

This SDS complies with the requirements of JIS Z 7252:2019 and JIS Z 7253:2019 (Japan). The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.