

Safety Data Sheet

Issued Date: October 28, 2008
 Revised Date: July 22, 2010

COPY

1. IDENTIFICATION

PRODUCT NAME	ThreeBond 2082C Hardener
ISSUED NUMBER	kenkyukanri 598-5
NAME OF MANUFACTURER	Three Bond Co., Ltd.
ADDRESS	1456, Hazama-cho, Hachioji-shi, Tokyo, Japan
NAME OF SECTION	Administration Department Research Division
TEL / FAX NUMBER	+81-42-661-1367 / +81-42-669-7235
EMERGENCY TEL NUMBER	+81-42-661-1367
RECOMMENDED USE AND RESTRICTION ON USE	Adhesive and sealant

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION
 PHYSICAL HAZARDS Flammable liquids Not classified
 *Not above mentioned hazard classification items; Not classified or Not classifiable.

NOTICE

SAFETY MEASURE	Wear appropriate chemical protectors; gloves, and/or glasses when Use personal protection and ventilation equipment to avoid exposure, if necessary.
SAFETY MEASURE	Wear appropriate chemical protectors; gloves, and/or glasses when
FIRST AID MEASURE	If you feel unwell, remove victim to fresh air and keep at rest in a position comfortable for breathing. If on skin: Wash with plenty of soap and water. Remove contaminated clothing. If skin irritation or rash occurs: Get medical advice, attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice, attention.
STORAGE	Keep container tightly closed. Protect from direct sunlight. Store the product at moderate temperature.
DISPOSAL	Solicit waste disposal management experts.

GHS Hazard Communication is mentioned in accordance with Japanese Law.

3. COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE/MIXTURE	Mixture		
CHEMICAL COMPOSITION			
INGREDIENTS	Wt%	Formula	CAS Number
Polyamideamine, Other hardeners	> 90	—	—
Triethylene tetramine	4.3	C ₆ H ₁₈ N ₄	112-24-3
IMPURITIES AND STABILIZING ADDITIVES WHICH ARE THEMSELVES CLASSIFIED AND WHICH CONTRIBUTE TO THE CLASSIFICATION OF THE SUBSTANCE	No information		

4. FIRST-AID MEASURES

IF INHALED	In case of poisoning, remove victim to fresh air, calm down, keep warm then get medical advice, attention.
IF ON SKIN	Wash soap and water. Remove contaminated clothing. If skin irritation or rash occurs, get medical advice, attention.
IF IN EYES	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing, then get medical advice, attention.
IF SWALLOWED	Rinse mouth. Get medical advice, attention.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA	Dry powder, alcohol-resistant foam and carbon dioxide extinguisher, dry sand, water spray
SPECIFIC HAZARDS ARISING FROM THE CHEMICAL	May produce poisonous and irritated gasses upon a fire.
SPECIFIC FIRE FIGHTING MEASURES	Workers should wear appropriate protectors (glasses, cloths, mask for poisonous gasses, etc.), then extinguish should be performed up wind.

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6. ACCIDENTAL RELEASE

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Wear appropriate protective equipment (refer to 8. Exposure Control/Personal Protection) to avoid contact to eyes, skin and inhalation.

ENVIRONMENTAL PRECAUTIONS, RECOVERY/NEUTRALIZATION

Take precaution to prevent product to flow into rivers and effect environment.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

In case of a small spill, absorb with dry sand, soil, sawdust, cloth, etc., then place in a sealable container.

In case of large spills, dike and prevent overflow. Guide to a safe place then dispose properly.

SECONDARY ACCIDENT PREVENTION MEASURE

All ignition sources should be quickly removed. (No smoking in vicinity, prohibit sparks or fire sources)

7. HANDLING AND STORAGE

HANDLING

ENGINEERING MEASURES

Wear protective equipment. Perform engineering measures in accordance with 「8. Exposure Control / Personal Protection」.

LOCAL VENTILATION /GENERAL VENTILATION

Perform local and general ventilation in accordance with 「8. Exposure Control/Personal Protection」.

SAFETY HANDLING PRECAUTIONS

Fire strictly prohibited

STORAGE

ENGINEERING MEASURES

Keep container tightly closed. Protect from direct sunlight. Store the product at moderate temperature.

Refer to the technical data, specifications, and a product label about handling range of temperature.

CONTAINER AND PACKAGING MATERIALS

Keep only in original container. Do not transfer the product to another container.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

CONTROL PARAMETERS

	ACGIH TLV	OSHA PEL
Triethylene tetramine	Not established	Not established
ENGINEERING MEASURES	If handling this product indoors, seal off sources or use a local mechanical ventilation system, etc.	
	Place a safety shower, hand washing sink and an eye bath near work area and clearly marked.	

PERSONAL PROTECTION EQUIPMENT

RESPIRATORY PROTECTION

Wear mask to prevent organic gas poisoning, if necessary.

HAND PROTECTION

Wear appropriate protective gloves (Polyethylene, rubber, etc., solvent impervious materials).

EYE PROTECTION

Use eye protection. (preferably goggles)

SKIN AND BODY PROTECTION

Wear personal protection apron, boots, if necessary. Do not work with short sleeve shirts.

SANITARY MEASURES

Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE

APPEARANCE	Liquid
COLOR	Yellow-brown
ODOR	Distinctive odor
FLASHPOINT	166°C
SPECIFIC GRAVITY (DENSITY)	0.98
SOLUBILITY	Slightly soluble in water
VISCOSITY	16 Pa·s
PHYSICAL STATE as Triethylene tetramine	
FLASHPOINT	143°C

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10. STABILITY AND REACTIVITY

STABILITY	Stable under normal conditions.
POSSIBLY HAZARDOUS REACTION	If mixed with epoxy and isocyanate compounds, it reacts by generating a great deal of heat. If mixed with strong oxidizers, it will suddenly generate a great deal of heat.
CONDITION TO AVOID	Heating.
INCOMPATIBLE MATERIALS	Epoxy compounds, isocyanate compounds or strong oxidizers.
HAZARDOUS DECOMPOSITION	Incineration may produce poisonous gasses (Carbon monoxide, Ammonia, NOx, etc.) upon condition.

11. TOXICOLOGICAL INFORMATION

HEALTH HAZARDS	
ACUTE TOXICITY	No data as product
SKIN CORROSION/IRRITATION	No data as product but causes skin and mucous membrane irritation

Information on GHS Hazard Communication is in accordance with Japanese Law

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS	
HAZARDS TO THE AQUATIC ENVIRONMENT	No data as product
ECOTOXICITY	No data

Information on GHS Hazard Communication is in accordance with Japanese Law

13. DISPOSAL CONSIDERATIONS

METHOD OF DISPOSAL	To dispose product, solicit waste disposal management experts. Prohibited that to dispose the waste or waste liquid containing the product in the river, etc., to reclaim, to dump the product as it is.
CONTAMINATED CONTAINERS AND PACKAGING	Handle in used container and cloth same as above.

14. TRANSPORT INFORMATION

INTERNATIONAL REGULATION	
SEA TRANSPORTATION	Not applicable
UN number	Not applicable
AIR TRANSPORTATION	Not applicable
UN number	Not applicable
JAPAN DOMESTIC REGULATION	
LAND TRANSPORTATION	In accordance with Japanese Law

15. REGULATORY INFORMATION

Handle in accordance with applicable laws and regulations.

16. OTHER INFORMATION

Portions of the above evaluation of dangerous and harmful effects may be insufficient, please perform adequate investigation.

The content in this report is based on information which was available as of the Effective date.

But Three Bond Co., Ltd. and its affiliates are not responsible for guaranteeing the above data and evaluations.

The above data assumes usage under normal working conditions.

In case of special handling is required, please handle with suitable safety measures according to the application and usage.

The content in this report may change due to new evaluation and tests, etc.

In case there are differences in the translation, the Japanese language version takes precedence.