ThreeBond

SAFETY DATA SHEET

Issue date 09-Feb-2015 **Revision Date** 28-Apr-2016 **Version** 3

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product identifier
Product name ThreeBond 1212

Recommended use of the chemical and restrictions on use
Recommended use Adhesive, Sealant

Details of the supplier of the safety data sheet
Manufacturer
ThreeBond Fine Chemical Co., Ltd.

Department in charge & Address
Production Engineering Division
1-1 Oyama-cho, Midori-ku
Sagamihara-shi, Kanagawa, Japan

Emergency telephone number
+81-42-774-1333

Section 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Acute toxicity - Dermal	Category 4
Skin sensitization	Category 1
Carcinogenicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 2

Category 2 blood forming system.

Label elements

Signal word Warning

Hazard statements
H312 - Harmful in contact with skin
H317 - May cause an allergic skin reaction
H351 - Suspected of causing cancer
H373 - May cause damage to organs through prolonged or repeated exposure
May cause damage to the following organs through prolonged or repeated exposure: blood forming system.

Precautionary Statements - Prevention
• Obtain special instructions before use
• Do not handle until all safety precautions have been read and understood
• Use personal protective equipment as required
• Contaminated work clothing should not be allowed out of the workplace
• Wear protective gloves
• Do not breathe dust/fume/gas/mist/vapors/spray

Precautionary Statements - Response
• IF exposed or concerned: Get medical advice/attention
• For emergency procedures, refer to this SDS.
• For first aid procedure, refer to this SDS.
• IF ON SKIN: Wash with plenty of soap and water
• Call a POISON CENTER or doctor/physician if you feel unwell
• Wash contaminated clothing before reuse
• If skin irritation or rash occurs: Get medical advice/attention
Precautionary Statements - Storage
• Store locked up
Precautionary Statements - Disposal
• Dispose of contents/container to an approved waste disposal plant

Other hazards
• May be harmful if swallowed

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Single substance or mixture Mixture
2-Butanone, oxime; Generated during polymerization reaction.

Chemical name	Weight-%	ENCS	ISHL No.	CAS No.
Titanium dioxide (IV)	<2	(5)-5225,(1)-558	-	13463-67-7
2-Butanone, oxime	-	(2)-546	-	96-29-7
Silicone resin	85-95	-	-	-
Silica	5-15	-	-	-

Effective June 1, 2016, regarding Japan's Industrial Safety and Health Law's "Notifiable Dangerous and Harmful ", target substances will be subjected to risk assessment in accordance with Japan's Industrial Safety and Health Law's "Harmful Substances Whose Names Are to be Indicated on the Label."

Industrial Safety and Health Law

Law Name	Chemical Name in Regulation	Ordinance Number
Notifiable Substances (Law Art.57-2, Enforcement Oder Art.18-2 Attached Table No.9)	Titanium(IV) oxide	191
Notifiable Substances (Law Art.57-2, Enforcement Oder Art.18-2 Attached Table No.9)	Silica	312

Section 4: FIRST AID MEASURES

INHALATION Remove to fresh air. Seek immediate medical attention/advice.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In the case of skin irritation or allergic reactions see a physician.

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Seek immediate medical attention/advice.

INGESTION Rinse mouth. Get medical attention.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing media Water spray (fog) Carbon dioxide (CO2) Extinguishing powder Alcohol resistant foam Sand

Specific hazards arising from the chemical May generate irritate, harmful gas.

Special extinguishing media Wear protection gear and extinguish from windward.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions Wear appropriate protection gear (Refer to Section 8) and avoid eye and skin contact.

Environmental precautions Keep out of waterways. Avoid release to the environment.

Methods for containment In case of small spill, absorb the spill in dry sand, soil or cloth and keep in closed container. In case of large spill, surround the spill by bank to prevent from leakage, and collect the spill after it is moved to safety place.

Prevention of secondary hazards Keep ignition source away from spill.

Section 7: HANDLING AND STORAGE

Handling

Precautions for safe handling

Advice on safe handling Take equipment measures listed in Section 8. Wear protection gear.

Local and general ventilation Take equipment measures listed in Section 8. Wear protection gear.

Storage

Storage conditions Close lid. Avoid direct sun light and ignition source. Keep appropriate temperature.

Material of vessels and packaging Keep this product in original container. Do not put it back in the container.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure guidelines

Chemical name	Japan	ISHL Working Environmental Evaluation Standards - Administrative Control Levels	ACGIH TLV
Titanium dioxide (IV)	TWA: 0.3 mg/m^3	-	TWA: 10 mg/m^3

Engineering 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

- O **Respiratory protection** In case of inadequate ventilation wear respiratory protection
- O **Hand protection** Wear appropriate protection glove (Made from non-permeable material such as polyethylene, rubber)
- O **Eye/face protection** Wear safety glasses with side shields (or goggles)
- O **Skin and body protection** Wear protection apron, protection boots. Wear long sleeve cloth.

Other information Wash hands thoroughly after handling. When using do not eat, drink or smoke.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state Paste
Odor Distinct odor
Color White

Property	Values	Remarks
pH	No data available	
Melting point/freezing point	No data available	
Boiling point / boiling range	No data available	
Flash point	75 °C	
Evaporation rate	No data available	
Flammability (solid, gas)		

Flammability limit in air
Upper flammability limit: No data available
Lower flammability limit: No data available
Specific gravity 1.05
Water solubility Slightly soluble
Autoignition temperature No data available
Decomposition temperature No data available
Dynamic viscosity 300 Pa・s

Section 10: STABILITY AND REACTIVITY

Stability Stable under normal conditions.

Possibility of hazardous reactions React with moisture in air. Gradually release hazardous gas.

Conditions to avoid Extreme heat

Incompatible materials Strong oxidizing agents.

Hazardous decomposition products May generate harmful gas by incineration

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document
Inhalation LC50 No data available as this product.

Numerical measures of toxicity - Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Titanium dioxide (IV)	> 10000 mg/kg (Rat)	-	-
2-Butanone, oxime	= 930 mg/kg (Rat)	= 0.2 mg/kg (Rabbit)	= 20 mg/L (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation No data available as this product.

Serious eye damage/eye irritation No data available as this product.

Sensitization No data available as this product.

Germ cell mutagenicity No data available as this product.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen

Chemical name	Japan	IARC
Titanium dioxide (IV)	2	Group 2B
2-Butanone, oxime	2	-

Reproductive toxicity No data available as this product.

STOT - single exposure No data available as this product.

STOT - repeated exposure No data available as this product.

Aspiration hazard No data available as this product.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Acute aquatic hazard No data available as this product.

Chronic aquatic hazard No data available as this product.

Chemical name	Algae/aquatic plants	Fish	Crustacea
2-Butanone, oxime	*83: 72 h Desmodesmus subspicatus mg/L EC50*	*760: 96 h Poecilia reticulata mg/L LC50 static 777 - 914: 96 h Pimephales promelas mg/L LC50 flow-through 320 - 1000: 96 h Leuciscus idus mg/L LC50 static*	*750: 48 h Daphnia magna mg/L EC50*

Persistence and degradability No data available as this product.

Bioaccumulation No data available as this product.

Mobility in soil No data available as this product.

Endocrine disruptor information No data available as this product.

Section 13: DISPOSAL CONSIDERATIONS

Waste from residues / unused products Dispose of in accordance with national, state and local regulations. Consult industrial waste managent companies for waste. Do not release this product to natural environment nor reclaim.

Contaminated packaging Dispose containers as same as residual of this product.

Section 14: TRANSPORT INFORMATION

IMDG Not regulated

ICAO/IATA (air) Not regulated

ADR Not regulated

Japanese regulations

Marine Transportation Safety Act Not applicable

Civil Aeronautics Act Not applicable

Section 15: REGULATORY INFORMATION

Effective June 1, 2016, regarding Japan's Industrial Safety and Health Law's "Notifiable Dangerous and Harmful ", target substances will be subjected to risk assessment in accordance with Japan's Industrial Safety and Health Law's "Harmful Substances Whose Names Are to be Indicated on the Label."

Fire protection law criteria Designated Combustible Substances - Combustible solids

Industrial Safety and Health Law Notifiable Substances (Law Art.57-2, Enforcement Oder Art.18-2 Attached Table No.9)

Section 16: OTHER INFORMATION

Issue date	09-Feb-2015
Other information	Please contact to local sales offices for further information.

Disclaimer
Handle with care. The data in this document is not guaranteed. This information may be revised based on new findings or test results. This data sheet is authored in accordance with Japanese regulations.