

Issue date 17-Mar-2022

Revision Date 17-Mar-2022

Revision Number 1

## 1. Identification

**Product Name** ThreeBond 1211

### 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, Sagami-hara-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

Flammable liquids	Category 4
Acute toxicity - Oral	Classification not possible
Acute toxicity - Dermal	Classification not possible
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	Classification not possible
Serious eye damage/eye irritation	Category 2
Respiratory sensitization	Classification not possible
Skin sensitization	Category 1B
Germ cell mutagenicity	Classification not possible
Carcinogenicity	Category 1B
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	Classification not possible
Chronic aquatic toxicity	Classification not possible
Ozone	Classification not possible

### GHS label elements



**Signal word** Danger

### **Hazard statements**

H319 - Causes serious eye irritation  
H317 - May cause an allergic skin reaction  
H350 - May cause cancer

H227 - Combustible liquid

**Precautionary statements****Prevention**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**Response**

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see .? 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.

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

Take off contaminated clothing and wash it before reuse.

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

**Storage**

Store locked up.

Store in a well-ventilated place.

**Disposal**

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

**Other hazards**

May be harmful in contact with skin.

Causes mild skin irritation.

### 3. Composition/information on ingredients

**Pure substance/mixture**

Mixture

**Chemical nature**

Generated during the curing reaction of methyl ethyl ketone oxime

Chemical name	CAS No	Weight-%	ENCS Number	ISHL No
Titanium dioxide (IV)	13463-67-7	1-<5	(1)-558,(5)-5225	(5)-5225,(1)-558 2-(3)-509
Silicone resin and additive	-	90-<99	-	-
Methyl ethyl ketone oxime	-	-	-	-

This product contains  $\geq 0.1$  -  $< 1.0\%$  of substance(s) that are classified for Skin sensitization Category 1/1B. This product contains  $\geq 0.1$  -  $< 1.0\%$  of substance (s) that are classified for Carcinogenicity Category 2.

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

Not applicable

**Industrial Safety and Health Law****ISHL Notifiable Substances**

ISHL Notifiable Substances - information (safety data sheet) to be supplied; Industrial Safety and Health Law enforcement order Table 9 (related to Industrial Safety and Health Law article 57-2 and ISHL Ordinance Article 34-2-4)

Chemical name	CAS No	Category	Ordinance number
Titanium dioxide (IV)	13463-67-7	ISHL Notifiable Substances	191

**Harmful Substances Whose Names Are to be Indicated on the Label**

Harmful Substances - names to be indicated on the label; Industrial Safety and Health Law enforcement order Table 9 (related to Industrial Safety and Health Law article 57 and ISHL Ordinance Article 33)

Chemical name	CAS No	Category	Ordinance number
Titanium dioxide (IV)	13463-67-7	Harmful Substances Whose Names Are to be Indicated on the Label	191

**Poisonous and Deleterious Substances Control Law**

Not applicable

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

Not applicable

**4. First-aid measures**

<b>General advice</b>	Show this safety data sheet to the doctor in attendance.
<b>In case of inhalation</b>	Remove to fresh air.
<b>In case of skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
<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. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>In case of ingestion</b>	Clean mouth with water and drink afterwards plenty of water.
<b>Most important symptoms/effects, acute and delayed</b>	No information available.
<b>Self-protection of the first aider</b>	Remove all sources of ignition. 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).
<b>Note to physicians</b>	Treat symptomatically.

**5. Fire-fighting measures**

<b>Suitable Extinguishing Media</b>	Dry chemical. Carbon dioxide (CO <sub>2</sub> ). Water spray. Alcohol resistant foam.
<b>Unsuitable extinguishing media</b>	Do not scatter spilled material with high pressure water streams.
<b>Specific hazards arising from the chemical</b>	Keep product and empty container away from heat and sources of ignition. In the event of fire, cool container with water spray.
<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>	Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Take precautionary measures against static discharges. Do not touch or walk through spilled material. Ensure adequate ventilation.
<b>For emergency responders</b>	Use personal protection recommended in Section 8.

<b>Environmental precautions</b>	Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so.
<b>Methods for containment</b>	Stop leak if you can do it without risk. Do not touch or walk through spilled material. Dike far ahead of liquid spill for later disposal.
<b>Methods for cleaning up</b>	Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. 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

<b>Advice on safe handling</b>	Take equipment measures listed in Section 8. Wear protection gear. Use personal protection equipment. Do not breathe vapor or mist. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Use with local exhaust ventilation.
<b>Hygiene Measures</b>	Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

### Storage

<b>Storage Conditions</b>	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Store in accordance with the particular national regulations. Store in accordance with local regulations.
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## 8. Exposure controls/personal protection

<b>Engineering controls</b>	Showers Eyewash stations Ventilation systems.
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### **Exposure guidelines**

Chemical name	Japan Society of Occupational Health	ISHL Working Environmental Evaluation Standards - Administrative Control Levels	ACGIH TLV
Titanium dioxide (IV) 13463-67-7	TWA: 0.3 mg/m <sup>3</sup>	-	TWA: 10 mg/m <sup>3</sup>

<b>Biological occupational exposure limits</b>	Not applicable
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<b>Environmental exposure controls</b>	Install local ventilation or seal source of substances. Install safety shower, hand wash, and eye wash station. Clearly indicate the location.
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### Personal protective equipment

<b>Respiratory protection</b>	In case of inadequate ventilation wear respiratory protection.
<b>Hand protection</b>	Wear appropriate protection glove (Made from non-permeable material such as

polyethylene, rubber).

**Eye/face protection** Tight sealing safety goggles.

**Skin and body protection** Wear protection apron, protection boots. Wear long sleeve cloth.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

<b>Physical state</b>	Liquid	
<b>Color</b>	White	
<b>Odor</b>	Distinct odor	
<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>
<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	
Upper flammability or explosive limits		
Lower flammability or explosive limits		
<b>Flash point</b>	87 °C	Closed Cup
<b>Autoignition temperature</b>	no data available	
<b>Decomposition temperature</b>	no data available	
<b>pH</b>	no data available	
<b>Kinematic viscosity</b>	no data available	
<b>Dynamic viscosity</b>	70 Pa · s	
<b>Water solubility</b>	Slightly soluble	
<b>Solubility(ies)</b>	no data available	
<b>Partition Coefficient (n-octanol/water)</b>	no data available	
<b>Vapor pressure</b>	no data available	
<b>Relative vapor density</b>	no data available	
<b>Relative density</b>	1.01	
<b>Particle characteristics</b>		
Particle Size	no data available	
Particle Size Distribution	no data available	

## 10. Stability and reactivity

<b>Stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	React with moisture in air. Gradually release hazardous gas.
<b>Conditions to avoid</b>	Heat, exposure to light.
<b>Incompatible materials</b>	Strong oxidizing agents. Water. Moisture.
<b>Hazardous decomposition products.</b>	May generate harmful gas by incineration. Carbon monoxide. Carbon oxides. Incomplete combustion and carbon compounds of trace. silicon dioxide. Nitrogen oxides (NOx). Formaldehyde. Reacts with water, moisture and water in the air to form the following compounds. Methylethylketooxime.

## 11. Toxicological information

**Acute toxicity**

Classification not possible.

**Numerical measures of toxicity - Product Information**

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

ATEmix (dermal) 2,969.20 mg/kg

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Titanium dioxide (IV)	> 10000 mg/kg ( Rat )	-	-

**Abbreviations and acronyms**

Rat: Rat

Rabbit: Rabbit

**Symptoms** No information available.**Product Information****Ingestion** Specific test data for the substance or mixture is not available.**Inhalation** Specific test data for the substance or mixture is not available.**Skin contact** May be harmful in contact with skin. Causes mild skin irritation.**Eye contact** Specific test data for the substance or mixture is not available.**Skin corrosion/irritation** Based on available data, the classification criteria are not met. Classification not possible.**Serious eye damage/eye irritation** Based on available data, the classification criteria are not met. Classification not possible.**Respiratory or skin sensitization** Classification not possible.**Germ cell mutagenicity** Based on available data, the classification criteria are not met. Classification not possible.

**Carcinogenicity** The hazardous substance(s) which is (are) any of the following substances and listed on section 3 is (are) embedded in the product and not available as respirable dusts. When used as intended or as supplied, the product will not pose hazards of the hazardous substance(s). Silica, Quartz, Carbon black, Titanium oxide, Crystalline silica. Based on available data, the classification criteria are not met. Classification not possible.

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

Chemical name	Japan	IARC
Titanium dioxide (IV) 13463-67-7	2	Group 2B

**Legend****IARC (International Agency for Research on Cancer)**

Group 2B - Possibly Carcinogenic to Humans

**Reproductive toxicity** Based on available data, the classification criteria are not met. Classification not possible.**STOT - single exposure** Based on available data, the classification criteria are not met. Classification not possible.

<b>STOT - repeated exposure</b>	May cause damage to organs through prolonged or repeated exposure.
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met. Classification not possible.

## 12. Ecological information

<b>Ecotoxicity</b>	Classification not possible.
<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 data available as this product.
<b>Component Information</b>	
<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.

## 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

<b><u>IMDG</u></b>	Not regulated
<b><u>ADR</u></b>	Not regulated
<b><u>IATA</u></b>	Not regulated
<b><u>Japanese regulations</u></b>	Not regulated

## 15. Regulatory information

**National regulations**  
**Pollutant Release and Transfer Registry (PRTR)**  
Not applicable  
**Industrial Safety and Health Law**

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**ISHL Notifiable Substances**

ISHL Notifiable Substances - information (safety data sheet) to be supplied; Industrial Safety and Health Law enforcement order Table 9 (related to Industrial Safety and Health Law article 57-2 and ISHL Ordinance Article 34-2-4)

**Poisonous and Deleterious Substances Control Law**

Not applicable

**Explosives Control Law**

Not applicable

**High Pressure Gas Safety Act**

Not applicable

**Fire Service Law:**

Flammable liquids, group 4, 3rd class petroleums, water-insoluble, hazard rank III, 2000 liters

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

Not applicable

**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**

17-Mar-2022

**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-Labelling 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.