

Issue date 18-Mar-2022

Revision Date 18-Mar-2022

Revision Number 1

1. Identification

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

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	Classification not possible
Acute toxicity - Inhalation (Gases)	Classification not possible
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 1
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

H315 - Causes skin irritation
H318 - Causes serious eye damage
H317 - May cause an allergic skin reaction
H350 - May cause cancer

Precautionary statements**Prevention**

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.
 Obtain special instructions or technical data sheet before use.

Response

IF exposed or concerned: Get medical advice/attention.
 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 Immediately call a POISON CENTER or doctor
 IF ON SKIN: Wash with plenty of water and soap.
 Take off contaminated clothing and wash it before reuse.
 If skin irritation or rash occurs: Get medical advice/attention.

Storage

Store locked up.

Disposal

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

Other hazards

May be harmful in contact with skin.

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
Silicon compound	-	90-<99	-	-
Methyl ethyl ketone oxime	-	-	-	-

Pollutant Release and Transfer Registry (PRTR)

Not applicable

Industrial Safety and Health LawISHL 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

General advice	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.
In case of inhalation	Remove to fresh air. Get medical attention immediately if symptoms occur.
In case of skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
In case of eye contact	Get immediate medical advice/attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area.
In case of ingestion	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.
Most important symptoms/effects, acute and delayed	Burning sensation.
Self-protection of the first aider	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).
Note to physicians	Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
Specific hazards arising from the chemical	No information available.
Flammable properties	Combustible material: may burn but does not ignite readily. Contact with metals may evolve flammable hydrogen gas. Containers may explode when heated.
Special extinguishing media Large Fire	Cool container with water spray. CAUTION: Use of water spray when fighting fire may be inefficient.
Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Ensure adequate ventilation.
For emergency responders	Use personal protection recommended in Section 8.
Environmental precautions	Prevent further leakage or spillage if safe to do so.
Methods for containment	Prevent further leakage or spillage if safe to do so.

Methods for cleaning up	Pick up and transfer to properly labeled containers.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.
Other information	Refer to protective measures listed in Sections 7 and 8.

7. Handling and storage

Handling

Advice on safe handling	Take equipment measures listed in Section 8. Wear protection gear. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.
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. Wash hands before breaks and immediately after handling the 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.
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8. Exposure controls/personal protection

Engineering controls	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 ³	-	TWA: 10 mg/m ³

Biological occupational exposure limits	Not applicable
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Environmental exposure controls	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

Respiratory protection	In case of inadequate ventilation wear respiratory protection.
Hand protection	Wear suitable gloves. Impervious gloves.
Eye/face protection	Tight sealing safety goggles.
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	Solid	
Color	White	
Odor	Distinct odor	
Property	Values	Remarks • Method
Melting point / freezing point	no data available	
Boiling point / boiling range	no data available	
Flammability	no data available	
Upper/lower flammability or explosive limits	no data available	
Upper flammability or explosive limits		
Lower flammability or explosive limits		
Flash point	75 °C	Closed Cup
Autoignition temperature	no data available	
Decomposition temperature	no data available	
pH	no data available	
Kinematic viscosity	no data available	
Dynamic viscosity	300 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	1.05	
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	Hazardous polymerization does not occur.
Conditions to avoid	None under normal use conditions.
Incompatible materials	Strong oxidizing agents. Water. Moisture.
Hazardous decomposition products.	Reacts with water, moisture and water in the air to form the following compounds. Methylethylketooxime. May generate harmful gas by incineration. Carbon monoxide. Carbon oxides. Incomplete combustion and carbon compounds of trace. silicon dioxide. Formaldehyde.

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) 2,838.30 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 Redness. Burning. May cause blindness. May cause redness and tearing of the eyes.

Product Information

Ingestion Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Inhalation Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.

Skin contact Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).

Eye contact Specific test data for the substance or mixture is not available. Causes serious eye damage. May cause irreversible damage to eyes. Irritating to eyes. (based on components).

Skin corrosion/irritation Classification based on data available for ingredients. Irritating to skin.

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes burns. Risk of serious damage to eyes.

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. Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.

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.

STOT - repeated exposure Based on available data, the classification criteria are not met. Classification not possible.

Aspiration hazard Based on available data, the classification criteria are not met. Classification not possible.

12. Ecological information

Ecotoxicity Classification not possible.

Percentage for unknown hazards 0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Persistence and degradability No information available.

Bioaccumulation No data available as this product.

Component Information

Mobility in soil No information available.

Hazardous to the ozone layer Classification not possible. Based on available data, the classification criteria are not met.

Other adverse effects No information available.

13. Disposal considerations

Waste from residues/unused products 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.

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

14. Transport information

IMDG Not regulated

ADR Not regulated

IATA Not regulated

Japanese regulations 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:

Designated Combustible Substances - Combustible solids

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

18-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-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.