ThreeBond

SAFETY DATA SHEET

This safety data sheet complies with the requirements of:
JIS Z 7252:2019; JIS Z 7253:2019

Issuing Date 08-Jul-2021
Revision date 26-Oct-2023
Revision Number 2

1. Identification

Product Name ThreeBond 1207D

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)

Recommended use of the chemical and restrictions on use

Recommended use Adhesive, Sealant

Restrictions on use Please be sure to confirm in advance the appropriateness and safety of using the product for the relevant application If the product is to be used for applications other than those recommended, please seek professional judgment This product is for industrial use and its use for household and medical implants is prohibited.

2. Hazard(s) identification

GHS Classification

Flammable liquids	Category 3
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	Classification not possible
Respiratory sensitization	Classification not possible
Skin sensitization	Classification not possible
Germ cell mutagenicity	Classification not possible
Carcinogenicity	Classification not possible
Reproductive toxicity	Classification not possible
Effects on or via lactation	Classification not possible
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 Warning

Hazard statements

H226 - Flammable liquid and vapor

Precautionary statements

Prevention

• Ground and bond container and receiving equipment
• Use non-sparking tools
• Take action to prevent static discharges
• Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
• Keep container tightly closed
• Use explosion-proof electrical/ ventilating / lighting/ .? / equipment
• Wear protective gloves/protective clothing/eye protection/face protection

Response

• Not applicable

Skin

• IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]

Fire

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

Storage

• Store in a well-ventilated place. Keep cool

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 Acetone is generated during curing reaction.

Chemical name	CAS No.	Weight-%	ENCS Number	ISHL No.
Quartz	14808-60-7	40-<50	(1)-548	(1)-548
Aluminum	7429-90-5	1-<5	-	
Silicon compound	-	45-<55		
Acetone	67-64-1	-	(2)-542	(2)-542

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

Pollutant Release and Transfer Register (PRTR)

Not applicable

Industrial Safety and Health Law

ISHL Notifiable Substances

Article 57-2 of the ISHL, Article 18-2, Item 1, Item 2, Table 9 and Item 3, Table 3 of Order for Enforcement

Harmful substances requiring risk assessment

Article 57-3 of the ISHL

Chemical name	Ministerial Ordinance Name	CAS No.	Implementation date
Quartz	Crystalline silica	14808-60-7	
Aluminum	Aluminum	7429-90-5	

Harmful Substances Whose Names Are to be Indicated on the Label
Article 57 of ISHL, Article 18, Item 1, Item 2, Table 9 and Item 3, Table 3 of Order for Enforcement

Chemical name	Ministerial Ordinance Name	CAS No.	Implementation date
Quartz	Crystalline silica	14808-60-7	
Aluminum	Aluminum	7429-90-5	

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 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. IF exposed or concerned: Get medical advice/attention.

In case of skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.

In case of eye contact 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. If symptoms persist, call a physician.

In case of ingestion 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.

Most important symptoms/effects, acute and delayed No information available.

Self-protection of the first aider 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. Use personal protective equipment as required. See section 8 for more information.

Note to physicians Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical Risk of ignition. Keep product and empty container away from heat and sources of ignition. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire, cool container with water spray.

Flammable properties HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames. Containers may explode when heated. Many liquids are lighter than water.

Special Extinguishing Media Cool container with water spray.

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Other information	CAUTION: Use of water spray when fighting fire may be inefficient.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.
For emergency responders	Use personal protection recommended in Section 8.
Environmental precautions	Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.
Methods for containment	Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.
Methods for cleaning up	Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.
Other information	Ventilate the area. 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. Use personal protection equipment. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Avoid contact with skin, eyes or clothing.
Hygiene Measures	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

Storage Conditions	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. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Keep out of the reach of children. Store locked up.

8. Exposure controls/personal protection

Exposure guidelines

Chemical name	Japan Society of Occupational Health	ISHL Working Environmental Evaluation Standards - Administrative Control Levels	ACGIH TLV	Japan ISHA Workplace exposure limit - 8 hours	Japan ISHA Workplace exposure limit - Short time
Quartz 14808-60-7	TWA: 0.03 mg/m³	-	TWA: 0.025 mg/m³ respirable particulate matter	-	-
Aluminum 7429-90-5	TWA: 2 mg/m³ TWA: 0.5 mg/m³	-	TWA: 1 mg/m³ respirable particulate matter	-	-
Acetone 67-64-1	TWA: 200 ppm TWA: 475 mg/m³	500 ppm	STEL: 500 ppm TWA: 250 ppm	-	-

Biological monitoring indicator

Chemical name	Japan Society of Occupational Health	ACGIH
Acetone 67-64-1	40 mg/L - urine (Acetone) - within 2 h prior to end of shift	25 mg/L - urine (Acetone) - end of shift

Engineering controls
Showers
Eyewash stations
Ventilation systems.

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. If workers are exposed to gases or vapors, consider wearing respiratory protective equipment (e.g., gas masks). When handling highly concentrated chemicals, consider wearing an air-supplied respirator. When selecting a respirator, the following points should be considered.
-Do not use masks in areas where the oxygen concentration is less than 18%.
-When using a gas mask in an environment where workers are exposed to dust, use an absorbent can with dustproof function.
-Select a gas mask with performance and construction suitable for the work in accordance with the Japanese Industrial Standard (JIS T8152), and refer to the data provided in the instruction manual.

Hand protection
Wear suitable gloves. Impervious gloves. Consider wearing impervious protective gloves. When selecting protective gloves, the following points should be considered.
-Referring to the impermeability class, etc. listed in the instruction manual, set a use time that allows for the work, and use protective gloves within that time range.

Eye/face protection
Tight sealing safety goggles.

Skin and body protection
Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Liquid
Color	Aluminum color
Odor	Distinct odor

Property	Values	Remarks • Method
Melting point / freezing point	no data available	
Initial boiling point and boiling range		
Flammability	no data available	
Upper/lower flammability or explosive limits		
Upper flammability or explosive limits	no data available	
Lower flammability or explosive limits	no data available	
Flash point	25 °C	Closed Cup
Evaporation rate	no data available	
Autoignition temperature	no data available	
Decomposition temperature	no data available	
pH	no data available	
Viscosity		
Kinematic viscosity	no data available	
Dynamic viscosity	70 Pa·s	
Water solubility	Slightly soluble	
Solubility(ies)	no data available	
Partition Coefficient (n-octanol/water)	no data available	
Vapor pressure	no data available	
Density and/or relative density		
Relative density	1.5	
Liquid Density	no data available	
Bulk density	no data available	
Relative vapor density	no data available	
Particle characteristics		
Particle Size	no data available	
Particle Size Distribution	no data available	

Other information

Explosive properties	no data available
Oxidizing properties	No data available

10. Stability and reactivity

Chemical stability Stable under normal conditions.

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

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. Acetone. May generate harmful gas by incineration. Carbon monoxide. Carbon dioxide (CO2). silicon dioxide. Formaldehyde.

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

Numerical measures of toxicity - Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Aluminum	-	-	> 0.888 mg/L (Rat) 4 h
Acetone	= 5800 mg/kg (Rat)	> 15700 mg/kg (Rabbit)	= 50100 mg/m³ (Rat) 8 h

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. Harmful if swallowed. (based on components).

Inhalation Specific test data for the substance or mixture is not available.

Skin contact May be harmful in contact with skin.

Eye contact Specific test data for the substance or mixture is not available.

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
Quartz 14808-60-7	1A	Group 1

Legend
IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans

Target organ effects Eyes. lungs. Respiratory system. Skin.

STOT - single exposure Based on the classification criteria of the Globally Harmonized System as adopted in the country or region with which this safety data sheet complies, this product has been determined to cause systemic target organ toxicity from acute exposure. (STOT SE). Causes damage to organs if swallowed.

STOT - repeated exposure 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, Crystalline silica.

12. Ecological information

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

Chemical name	Algae/aquatic plants	Fish	Crustacea
Acetone	-	LC50: 4.74 - 6.33mL/L (96h, Oncorhynchus mykiss) LC50: 6210 - 8120mg/L (96h, Pimephales promelas) LC50: =8300mg/L (96h, Lepomis macrochirus)	EC50: 10294 - 17704mg/L (48h, Daphnia magna) EC50: 12600 - 12700mg/L (48h, Daphnia magna)

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

Component Information

Chemical name	Partition coefficient
Acetone 67-64-1	-0.24

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 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.

14. Transport information

IMDG

UN number or ID number UN1993
UN proper shipping name Flammable liquid, n.o.s.
Description UN1993, Flammable liquid, n.o.s. 3, III, (25°C c.c.)
Transport hazard class(es) 3
Packing group III

Marine pollutant	NP
EmS-No.	F-E, S-E
Special Provisions	223, 274, 955

ADR

UN number or ID number	UN1993
UN proper shipping name	Flammable liquid, n.o.s.
Description	UN1993, Flammable liquid, n.o.s. 3, III, (D/E)
Transport hazard class(es)	3
Packing group	III
ERG Code	3L
Special Provisions	274, 601

IATA

UN number or ID number	UN1993
UN proper shipping name	Flammable liquid, n.o.s.
Description	UN1993, Flammable liquid, n.o.s. 3, III
Transport hazard class(es)	3
Packing group	III
Special Provisions	A3
ERG Code	3L

Japan

UN number or ID number	UN1993
UN proper shipping name	Flammable liquid, n.o.s.
Description	UN1993, Flammable liquid, n.o.s. 3, III
Transport hazard class(es)	3
Packing group	III
Special Provisions	223, 274

15. Regulatory information

National regulations

Pollutant Release and Transfer Register (PRTR)
Not applicable
Industrial Safety and Health Law

Prevention of hazards due to specified chemical substances
Not applicable
Ordinance on Prevention of Organic Solvent Poisoning
Not applicable
ISHL Notifiable Substances
Article 57-2 of the ISHL, Article 18-2, Item 1, Item 2, Table 9 and Item 3, Table 3 of Order for Enforcement
Harmful substances requiring risk assessment
Article 57-3 of the ISHL
Harmful Substances Whose Names Are to be Indicated on the Label
Article 57 of ISHL, Article 18, Item 1, Item 2, Table 9 and Item 3, Table 3 of Order for Enforcement
Carcinogenic substances
Chemical substances specified by the Minister of Health, Labor and Welfare based on the provisions of Article 577-2, Paragraph 3 of the Ordinance on Industrial Safety and Health

Chemical name	CAS No.
Quartz	14808-60-7

Poisonous and Deleterious Substances Control Law
Not applicable
Explosives Control Law
No

High Pressure Gas Safety Act
Not applicable
Fire Service Law:
Combustible solids, group 2, Flammable solids, hazard rank III, 1000 kg
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
Act on Port Regulation Law
See section 14 for more information

16. Other information

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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 used to compile the SDS
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.