ThreeBond

SAFETY DATA SHEET

Issue date 24-Mar-2022 **Revision Date** 24-Mar-2022 **Revision Number** 1

1. Identification

Product Name ThreeBond 1208

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

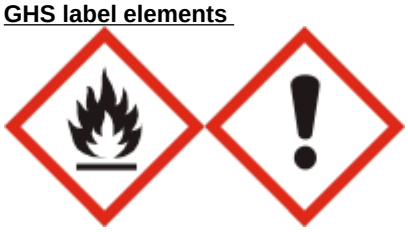
Emergency telephone number +81-42-703-7126 (Inquiries regarding SDS content)
+81-42-670-5333 (Inquiries regarding the product or SDS claim)

2. Hazard(s) identification

GHS - Classification

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	Category 2
Serious eye damage/eye irritation	Category 2
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	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 Warning
Hazard statements
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H226 - Flammable liquid and vapor

Precautionary statements
Prevention
Wash face, hands and any exposed skin thoroughly after handling.
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.
Wear protective gloves/protective clothing/eye protection/face protection.
Use explosion-proof electrical/ ventilating/ lighting/ equipment.

Response
Specific treatment (see section 4 on this SDS).
IF IN EYES: 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 occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
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

Causes mild skin irritation.

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
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	-	-
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 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	191

		Label	

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.

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 while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.

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. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

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 May cause redness and tearing of the eyes. Burning sensation.

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. Avoid contact with skin, eyes or clothing.

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. Flammable liquid.

Special extinguishing media Cool container with water spray.
Large Fire 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 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. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

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. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing.

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.

8. Exposure controls/personal protection

Engineering controls Showers
Eyewash stations
Ventilation systems.

Exposure guidelines

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

13463-67-7			
Acetone 67-64-1	TWA: 200 ppm TWA: 470 mg/m^3 ISHL/ACL: 500 ppm	500ppm	STEL: 500 ppm TWA: 250 ppm

Biological occupational exposure limits Not applicable

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

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.

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. Chemical resistant apron. Antistatic boots.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state Liquid
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	25 °C	Cleveland open cup
Autoignition temperature	no data available	
Decomposition temperature	no data available	
pH	no data available	
Kinematic viscosity	no data available	
Dynamic viscosity	50 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	1.04	
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 Heat, exposure to light.

Incompatible materials Water. Moisture. Strong oxidizing agents.

Hazardous decomposition products. May generate harmful gas by incineration. Carbon monoxide. Carbon oxides. Incomplete combustion and carbon compounds of trace. silicon dioxide. Nitrogen oxides (NOx). 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

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Titanium dioxide (IV)	> 10000 mg/kg (Rat)	-	-
Acetone	= 5800 mg/kg (Rat)	> 15700 mg/kg (Rabbit)	= 50100 mg/m³ (Rat) 8 h

Abbreviations and acronyms
Rat: Rat
Rabbit: Rabbit

Symptoms Redness. 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). Causes mild skin irritation.

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

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 serious eye irritation.

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.

Target organ effects Eyes. lungs. Respiratory system.

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. May cause damage to organs through prolonged or repeated exposure.

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.

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)

Persistence and degradability No information available.

Bioaccumulation No data available as this product.

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/ID No.	1993
Proper shipping name	Flammable liquid, n.o.s.
Description	1993, 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/ID No.	UN1993
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

Japanese regulations

UN Number	UN1993
Proper shipping name	Flammable liquid, n.o.s.
Description	UN1993, Flammable liquid, n.o.s., 3, III
Hazard class	3
Packing group	III
Special provisions	223, 274

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, 2nd class petroleums, water-insoluble, hazard rank III, 1000 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 24-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.