ThreeBond

SAFETY DATA SHEET

Issue date 08-Jul-2021 **Revision Date** 08-Jul-2021 **Revision Number** 1

1. Identification

Product Name ThreeBond 1207F

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

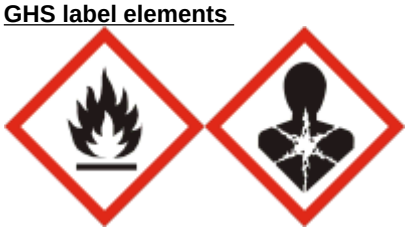
Emergency telephone number +81-42-703-7126 (Inquiries regarding SDS)
+81-42-670-5333 (Inquiries regarding product specifications)

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	Category 1A
Effects on or via lactation	Yes
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
H360 - May damage fertility or the unborn child
H362 - May cause harm to breast-fed children
H226 - Flammable liquid and vapor

Precautionary statements
Prevention
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/protective clothing/eye protection/face protection.
Do not breathe dust/fume/gas/mist/vapors/spray.
Avoid contact during pregnancy and while nursing.
Wash face, hands and any exposed skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
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.
Obtain special instructions or technical data sheet before use.
Use explosion-proof electrical/ ventilating/ lighting/ equipment.

Response
IF exposed or concerned: Get medical advice/attention.
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 locked up.
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
Toluene	108-88-3	0.1-<1	(3)-2,(3)-60,(3)-2,(3)-60	2-(8)-869
Acetone	67-64-1	-	(2)-542	(2)-542
Aluminum	7429-90-5	1-<5	-	-
Crystalline silica	-	40-<50	-	-
Silicone resin	-	45-<55	-	-

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
Toluene	108-88-3	ISHL Notifiable Substances	407
Aluminum	7429-90-5	ISHL Notifiable Substances	037
Crystalline silica	-	ISHL Notifiable Substances	312

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
Toluene	108-88-3	Harmful Substances Whose Names Are to be Indicated on the Label	407
Aluminum	7429-90-5	Harmful Substances Whose Names Are to be Indicated on the Label	037
Crystalline silica	-	Harmful Substances Whose Names Are to be Indicated on the Label	312

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.

In case of skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

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.

In case of ingestion Clean mouth with water and drink afterwards plenty of water.

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
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	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.

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. Remove contaminated clothing and shoes.
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.

8. Exposure controls/personal protection

Engineering controls

Showers
Eyewash stations
Ventilation systems.

Exposure guidelines

Chemical name	Japan Society of Occupational	ISHL Working Environmental	ACGIH TLV

	Health	Evaluation Standards - Administrative Control Levels	
Toluene 108-88-3	TWA: 50 ppm TWA: 188 mg/m³ Skin ISHL/ACL: 20 ppm	20ppm	TWA: 20 ppm
Acetone 67-64-1	TWA: 200 ppm TWA: 470 mg/m³ ISHL/ACL: 500 ppm	500ppm	STEL: 500 ppm TWA: 250 ppm
Aluminum 7429-90-5	TWA: 2 mg/m³ TWA: 0.5 mg/m³	-	TWA: 1 mg/m³ respirable particulate matter

Biological occupational exposure limits

Chemical name	Japan Society of Occupational Health	ACGIH
Toluene 108-88-3	0.6 mg/L - blood (Toluene) - within 2 h prior to end of shift at end of work week 0.06 mg/L - urine (Toluene) - within 2 h prior to end of shift at end of work week	0.02 mg/L - blood (Toluene) - prior to last shift of workweek 0.03 mg/L - urine (Toluene) - end of shift 0.3 mg/g creatinine - urine (o-Cresol with hydrolysis) - end of shift
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 Aluminum color
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	Closed Cup
Autoignition temperature	no data available	
Decomposition temperature	no data available	

pH	no data available
Kinematic viscosity	no data available
Dynamic viscosity	180 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	1.5
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 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 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

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Toluene	= 2600 mg/kg (Rat)	= 12000 mg/kg (Rabbit)	= 12.5 mg/L (Rat) 4 h
Acetone	= 5800 mg/kg (Rat)	> 15700 mg/kg (Rabbit)	= 50100 mg/m^3 (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.

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

Skin contact 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
Toluene 108-88-3	-	Group 3

Legend

IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Group 3 - Not Classifiable as to Carcinogenicity in Humans

Reproductive toxicity Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. May damage fertility or the unborn child. May cause harm to breast-fed children.

STOT - single exposure The following hazardous substance is 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. Silica. Based on available data, the classification criteria are not met. Classification not possible.

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

hazards environment.

Chemical name	Algae/aquatic plants	Fish	Crustacea
Toluene	EC50: =12.5mg/L (72h, Pseudokirchneriella subcapitata) EC50: >433mg/L (96h, Pseudokirchneriella subcapitata)	LC50: 11.0 - 15.0mg/L (96h, Lepomis macrochirus) LC50: 14.1 - 17.16mg/L (96h, Oncorhynchus mykiss) LC50: 15.22 - 19.05mg/L (96h, Pimephales promelas) LC50: 5.89 - 7.81mg/L (96h, Oncorhynchus mykiss) LC50: 50.87 - 70.34mg/L (96h, Poecilia reticulata) LC50: =12.6mg/L (96h, Pimephales promelas) LC50: =28.2mg/L (96h, Poecilia reticulata) LC50: =5.8mg/L (96h, Oncorhynchus mykiss) LC50: =54mg/L (96h, Oryzias latipes)	EC50: 5.46 - 9.83mg/L (48h, Daphnia magna) EC50: =11.5mg/L (48h, Daphnia magna)
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.

Component Information

Chemical name	Partition coefficient
Toluene 108-88-3	2.7
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.	UN1993
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/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:
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

16. Other information

Revision Date 08-Jul-2021

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.