

Issuing Date 04-Mar-2022

Revision date 31-Oct-2023

Revision Number 2

1. Identification

Product Name ThreeBond 1856

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 Antirust, lubricant

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

Aerosols	Category 1
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 1B
Effects on or via lactation	Classification not possible
Specific target organ toxicity (single exposure)	Category 1
Category 1 circulatory system.	
Category 3 Target organ effects: Narcotic effects.	
Specific target organ toxicity (repeated exposure)	Category 1
Category 1 Central nervous system.	
Aspiration hazard	Classification not possible
Acute aquatic toxicity	Category 3
Chronic aquatic toxicity	Classification not possible

Ozone	Classification not possible
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GHS label elements**Signal word**

Danger

Hazard statements

H222 - Extremely flammable aerosol
 H229 - Pressurized container: May burst if heated
 H360 - May damage fertility or the unborn child
 H336 - May cause drowsiness or dizziness
 H402 - Harmful to aquatic life
 H370 - Causes damage to organs
 H372 - Causes damage to organs through prolonged or repeated exposure
 Causes damage to the following organs: circulatory system.
 Causes damage to the following organs through prolonged or repeated exposure: Central nervous system.

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
- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Use only outdoors or in a well-ventilated area
- Avoid release to the environment
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
- Do not pierce or burn, even after use
- Do not spray on an open flame or other ignition source
- Obtain special instructions or technical data sheet before use

Response

- IF exposed or concerned: Get medical advice/attention
- IF exposed or concerned: Call a POISON CENTER or doctor
- Specific treatment (see section 4 on this SDS)

Inhalation

- IF INHALED: Remove person to fresh air and keep comfortable for breathing
- Call a POISON CENTER or doctor if you feel unwell

Storage

- Store locked up
- Store in a well-ventilated place. Keep container tightly closed
- Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F

Disposal

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

Other hazards

No information available.

3. Composition/information on ingredients**Pure substance/mixture**

Mixture

Chemical name	CAS No.	Weight-%	ENCS Number	ISHL No.
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Butane	106-97-8	40-<50	(2)-4	-
Tricresyl phosphate	1330-78-5	0.1-<1	(3)-2522,(3)-2613,(3)-3363	(3)-3363,(3)-2613,(3)-2522
Propane	74-98-6	5-<15	(2)-3	(2)-3
Silicone grease	-	40-<50		

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
Butane	Butane	106-97-8	
Tricresyl phosphate	Phosphoric acid, tritoyl ester	1330-78-5	2024-04-01

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
Butane	Butane	106-97-8	
Tricresyl phosphate	Tritoyl phosphate (except Tri-o-tolyl phosphate)	1330-78-5	2024-04-01

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. IF exposed or concerned: Get medical advice/attention.
In case of skin contact	Wash off immediately with plenty of water for at least 15 minutes. 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. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists. 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. Wear personal protective clothing (see section 8).
Note to physicians	Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media	Dry chemical. Carbon dioxide (CO ₂). Water spray.
Unsuitable extinguishing media	DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.
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. Cylinders may rupture under extreme heat. Damaged cylinders should be handled only by specialists. Containers may explode when heated. In the event of fire, cool container with water spray.
Flammable properties	Containers may explode when heated.
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). Take precautionary measures against static discharges. Avoid breathing dust/fume/gas/mist/vapors/spray.
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. 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. Flood with water to complete polymerization and scrape off floor.
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. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use spark-proof tools and explosion-proof equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Keep in an area equipped with sprinklers. Do not puncture or incinerate cans. Contents under pressure. In case of rupture. Avoid breathing vapors or mists. 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

Protect from sunlight. 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. Store in a cool, dry area away from potential sources of heat, open flames, sunlight or other chemicals. 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
Butane 106-97-8	TWA: 500 ppm TWA: 1200 mg/m ³	-	STEL: 1000 ppm explosion hazard	-	-
Tricresyl phosphate 1330-78-5	-	-	-	0.03mg/m ³	-
Propane 74-98-6	-	-	Simple asphyxiant : See Appendix F: Minimal Oxygen Content, explosion hazard	-	-

Biological monitoring indicator Not applicable

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

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. Impervious gloves.

	Wear suitable gloves.
Eye/face protection	Tight sealing safety goggles. Safety glasses with side shields are recommended for medical or industrial exposures.
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	grease	
Color	beige	
Odor	Slight 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	100 °C or above	
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	no data available	
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	0.97	
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	No hazardous reaction could occur under normal condition.

Conditions to avoid heating.

Incompatible materials No information available.

Hazardous decomposition products May generate harmful gas by incineration.

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
Butane	-	-	= 658 g/m ³ (Rat) 4 h
Tricresyl phosphate	> 20000 mg/kg (Rat)	> 10000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h
Propane	-	-	> 800000 ppm (Rat) 15 min

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 Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal.

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

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

Reproductive toxicity Classification based on data available for ingredients. May damage fertility or the unborn child.

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. May cause drowsiness or dizziness.

Causes damage to the following organs: circulatory system.

STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure.

Causes damage to the following organs through prolonged or repeated exposure: Central nervous system.

12. Ecological information

Ecotoxicity Harmful to aquatic life.

Chemical name	Algae/aquatic plants	Fish	Crustacea
Tricresyl phosphate	-	LC50: 0.1 - 0.22mg/L (96h, <i>Lepomis macrochirus</i>) LC50: 0.21 - 0.32mg/L (96h, <i>Oncorhynchus mykiss</i>) LC50: 3.3 - 6.2mg/L (96h, <i>Oncorhynchus mykiss</i>) LC50: 20.4 - 41.2mg/L (96h, <i>Lepomis macrochirus</i>) LC50: 3.2 - 10mg/L (96h, <i>Oryzias latipes</i>) LC50: 4.8 - 6.4mg/L (96h, <i>Poecilia reticulata</i>)	-

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
Butane 106-97-8	2.31
Tricresyl phosphate 1330-78-5	5.93
Propane 74-98-6	1.09

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

UN number or ID number	UN1950
UN proper shipping name	Aerosols
Description	UN1950, Aerosols, 2.1
Transport hazard class(es)	2.1
Marine pollutant	NP
EmS-No.	F-D, S-U
Special Provisions	63,190, 277, 327, 344, 381, 959

ADR

UN number or ID number	UN1950
UN proper shipping name	Aerosols
Description	UN1950, Aerosols, 2.1, (D)
Transport hazard class(es)	2.1
ERG Code	10L
Special Provisions	190, 327, 344, 625

IATA

UN number or ID number	UN1950
UN proper shipping name	Aerosols, flammable
Description	UN1950, Aerosols, flammable, 2.1
Transport hazard class(es)	2.1
Special Provisions	A145, A167, A802

Japan

UN number or ID number	UN1950
UN proper shipping name	Aerosols
Description	UN1950, Aerosols, 2.1
Transport hazard class(es)	2.1
Special Provisions	63, 190, 327, 344, 959

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

Poisonous and Deleterious Substances Control Law

Not applicable

Explosives Control Law

No

High Pressure Gas Safety Act

Not applicable

Fire Service Law:

Designated Combustible Substances - Synthetic resins

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.