ThreeBond

SAFETY DATA SHEET

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

Issuing Date 14-Oct-2021
Revision date 26-Oct-2023
Revision Number 3

1. Identification

Product Name ThreeBond 1222C

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

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	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

Hazard statements

Precautionary statements
Prevention
• Not applicable

Response
• Not applicable
Storage
• Not applicable
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 nature Methanol; Generated during polymerization reaction.

Chemical name	CAS No.	Weight-%	ENCS Number	ISHL No.
Cerium(IV) oxide	1306-38-3	5.6	(1)-627	(1)-627
Carbon black	1333-86-4	0.1-<1	-	(5)-5222,(5)-3328
Titanium dioxide (IV)	13463-67-7	1-<10	(1)-558,(5)-5225	(1)-558,(5)-5225
Quartz	14808-60-7	20-<30	(1)-548	(1)-548
Silicone resin and additive	-	60-<70		
Methyl alcohol	67-56-1	-	(2)-201	(2)-201

This product contains ≥1.0 - <10% of substance (s) that are classified for Specific target organ toxicity (single exposure) Category 2. This product contains ≥1.0 - <10% of substance (s) that are classified for Specific target organ toxicity (repeated exposure) Category 2.

Pollutant Release and Transfer Register (PRTR)
The amount of the relevant substance in certain cases referenced in article 4(i)(a) or 4(i)(b) of the Enforcement Order of the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (PRTR Act) is calculated based on the conversion factors shown (with safety factor = 1 in cases where conversion factor information is not available)

Chemical name	Cabinet order name	Metal, CN, F, etc.	Conversion coefficient	Category	Ordinance number	Control number
*	Cerium And Its Compounds			Class I designated chemical substance	1-276	665

***** Refer to Cabinet order name

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
Carbon black	Carbon black	1333-86-4	
Titanium dioxide (IV)	Titanium(IV) oxide	13463-67-7	
Quartz	Crystalline silica	14808-60-7	

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
Titanium dioxide (IV)	Titanium(IV) oxide	13463-67-7	
Quartz	Crystalline silica	14808-60-7	

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

In case of inhalation Remove to fresh air.

In case of skin contact Wash skin with soap and water.

In case of eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

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

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

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.

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 Ensure adequate ventilation.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions See Section 12 for additional Ecological Information.

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.

7. Handling and storage

Handling

Advice on safe handling Take equipment measures listed in Section 8. Wear protection gear.

Storage

Storage Conditions Refer to technical data sheet or material agreement and other documents for storage temperature range.

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
Carbon black 1333-86-4	TWA: 4 mg/m³ TWA: 1 mg/m³	-	TWA: 3 mg/m³ inhalable particulate matter	-	-
Titanium dioxide (IV) 13463-67-7	TWA: 0.3 mg/m³	-	TWA: 0.2 mg/m³ nanoscale respirable particulate matter TWA: 2.5 mg/m³ finescale respirable particulate matter	-	-
Quartz 14808-60-7	TWA: 0.03 mg/m³	-	TWA: 0.025 mg/m³ respirable particulate matter	-	-
Methyl alcohol 67-56-1	TWA: 200 ppm TWA: 260 mg/m³ S*	200 ppm	STEL: 250 ppm TWA: 200 ppm S*	-	-

Biological monitoring indicator

Chemical name	Japan Society of Occupational Health	ACGIH
Methyl alcohol 67-56-1	20 mg/L - urine (Methanol) - end of shift	15 mg/L - urine (Methanol) - 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	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	Wear safety glasses with side shields (or goggles).
Skin and body protection	Wear protection apron, protection boots. Wear long sleeve cloth.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Solid
Color	Gray
Odor	Alcohol odor

Property	Values	Remarks • Method
Melting point / freezing point	no data available	
Initial boiling point and boiling range		
Flammability	no data available	Not continuously flammable
Upper/lower flammability or explosive limits		
Upper flammability or explosive limits	no data available	
Lower flammability or explosive limits	no data available	
Flash point	92 °C	Seta 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	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	1.32	
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. React with strong oxidizing agent. Could cause fire.

Conditions to avoid Heat, exposure to light.

Incompatible materials OXIDIZERS.

Hazardous decomposition products May generate harmful gas by incineration. Methanol. Formaldehyde. Isopropyl alcohol. Benzene.

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
ATEmix (dermal) 30,907.00 mg/kg
ATEmix (inhalation-vapor) 78.10 mg/l

Numerical measures of toxicity - Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Cerium(IV) oxide	> 5 g/kg (Rat)	> 2000 mg/kg (Rat)	> 5.05 mg/L (Rat) 4 h
Carbon black	> 15400 mg/kg (Rat)	-	> 4.6 mg/m³ (Rat) 4 h
Titanium dioxide (IV)	> 10000 mg/kg (Rat)	-	= 5.09 mg/L (Rat) 4 h
Methyl alcohol	= 6200 mg/kg (Rat)	= 15840 mg/kg (Rabbit)	= 22500 ppm (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 Specific test data for the substance or mixture is not available.

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.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	Japan	IARC
Carbon black 1333-86-4	2	Group 2B
Titanium dioxide (IV) 13463-67-7	2	Group 2B
Quartz 14808-60-7	1A	Group 1

Legend

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans

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
Methyl alcohol	-	LC50: =28200mg/L (96h, Pimephales promelas) LC50: >100mg/L (96h, Pimephales promelas) LC50: 19500 - 20700mg/L (96h, Oncorhynchus mykiss) LC50: 18 - 20mL/L (96h, Oncorhynchus mykiss) LC50: 13500 - 17600mg/L (96h, Lepomis macrochirus)	-

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
Methyl alcohol 67-56-1	-0.77

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 Not regulated

ADR Not regulated

IATA Not regulated

Japan Not regulated

15. Regulatory information

National regulations

Pollutant Release and Transfer Register (PRTR)
Applies See section 3 for more information
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.

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:
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
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.