

Issue date 07-Dec-2021

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Revision Number 1

1. Identification

Product Name ThreeBond 5211E

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, Sagami-hara-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

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	Category 2
Respiratory sensitization	Classification not possible
Skin sensitization	Category 1
Germ cell mutagenicity	Classification not possible
Carcinogenicity	Category 1B
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 Danger

Hazard statements

H319 - Causes serious eye irritation
H317 - May cause an allergic skin reaction
H350 - May cause cancer

Precautionary statements**Prevention**

Do not handle until all safety precautions have been read and understood.
Wear protective gloves/protective clothing/eye protection/face protection.
Wash face, hands and any exposed skin thoroughly after handling.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Contaminated work clothing should not be allowed out of the workplace.
Obtain special instructions or technical data sheet before use.

Response

IF exposed or concerned: Get medical advice/attention.
Specific treatment (see section 4 on this SDS).
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 or rash occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.

Storage

Store locked up.

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

Generated during the curing reaction of methyl ethyl ketone oxime

Chemical name	CAS No	Weight-%	ENCS Number	ISHL No
Carbon black	1333-86-4	0.1-<1	(5)-5222,(5)-3328	(5)-5222,(5)-3328
2-Butanone, oxime	96-29-7	-	(2)-546	(2)-546
Silicone resin and additive	-	90-<99	-	-
Noncrystalline silica	-	1-<10	-	-

This product contains ≥ 0.1 - $< 3.0\%$ of substance (s) that are classified for Reproductive toxicity Category 2.

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
Carbon black	1333-86-4	ISHL Notifiable Substances	130

Harmful Substances Whose Names Are to be Indicated on the Label

Not applicable

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.
In case of skin contact	Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see 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.
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	Itching. Rashes. Hives. May cause redness and tearing of the eyes. Burning sensation.
Self-protection of the first aider	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).
Note to physicians	May cause sensitization in susceptible persons. 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	Product is or contains a sensitizer. May cause sensitization by skin contact.
Flammable properties	Combustible liquid.
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	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
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.
Other information	Refer to protective measures listed in Sections 7 and 8.

7. Handling and storage

Handling

Advice on safe handling

Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Take equipment measures listed in Section 8. Wear protection gear.

Hygiene Measures

Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.

Storage

Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.

8. Exposure controls/personal protection

Engineering controls

Showers
Eyewash stations
Ventilation systems.

Exposure guidelines

Not applicable.

Chemical name	Japan Society of Occupational Health	ISHL Working Environmental Evaluation Standards - Administrative Control Levels	ACGIH TLV
Carbon black 1333-86-4	TWA: 4 mg/m ³ TWA: 1 mg/m ³	-	TWA: 3 mg/m ³ inhalable particulate matter

Biological occupational exposure limits

Not applicable

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.

Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin and body protection

Wear suitable protective clothing.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state

Solid

Color

Black

Odor

Distinct odor

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
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	84 °C	Seta closed cup
Autoignition temperature	no data available	
Decomposition temperature	no data available	
pH	no data available	
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	
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	React with moisture in air. Gradually release hazardous gas. May react with strong oxidants.
Conditions to avoid	Heat, Moisture.
Incompatible materials	Oxidizer.
Hazardous decomposition products.	Degradation products may include, but are not limited to Formaldehyde Methylethylketoxime

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
ATEmix (dermal) 2,502.80 mg/kg

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Carbon black	> 15400 mg/kg (Rat)	-	> 4.6 mg/m ³ (Rat) 4 h
2-Butanone, oxime	= 930 mg/kg (Rat)	1000 - 1800 mg/kg (Rabbit)	> 4.83 mg/L (Rat) 4 h

Abbreviations and acronyms

Rat: Rat
Rabbit: Rabbit

Symptoms Itching. Rashes. Hives. 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 May cause sensitization by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). May cause irritation. Prolonged contact may cause redness and irritation. May be harmful in contact with skin.

Eye contact Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.

Skin corrosion/irritation Based on available data, the classification criteria are not met. Classification not possible. May cause skin irritation.

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes serious eye irritation.

Respiratory or skin sensitization May cause sensitization by skin contact.

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. 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
Carbon black 1333-86-4	2	Group 2B
2-Butanone, oxime 96-29-7	2	-

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

Target organ effects liver.

STOT - single exposure 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 hazards

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

Chemical name	Algae/aquatic plants	Fish	Crustacea
2-Butanone, oxime	EC50: =83mg/L (72h, <i>Desmodesmus subspicatus</i>)	LC50: 777 - 914mg/L (96h, <i>Pimephales promelas</i>) LC50: =760mg/L (96h, <i>Poecilia reticulata</i>)	EC50: =750mg/L (48h, <i>Daphnia magna</i>)

Persistence and degradability

No information available.

Bioaccumulation

No data available as this product.

Component Information

Chemical name	Partition coefficient
2-Butanone, oxime 96-29-7	0.65

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

Not regulated

ADR

Not regulated

IATA

Not regulated

Japanese regulations

Not regulated

15. Regulatory information

National regulations

Pollutant Release and Transfer Registry (PRTR)

Not applicable

Industrial Safety and Health Law

ISHL Notifiable Substances

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Poisonous and Deleterious Substances Control Law

Not applicable

Explosives Control Law

Not applicable

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

16. Other information

Revision Date

07-Dec-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.