

Issue date 13-Oct-2017

Revision Date 23-May-2019

Version 2

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product name ThreeBond 1110F

Recommended use of the chemical and restrictions on use

Recommended use Adhesive, Sealant

Details of the supplier of the safety data sheet

Manufacturer

ThreeBond Fine Chemical Co., Ltd.

Department in charge & Address

Production Engineering Division
1-1 Oyama-cho, Midori-ku
Sagamihara-shi, Kanagawa, Japan

Emergency telephone number

+81-42-774-1333

Section 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Label elements

Hazard statements

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Single substance or mixture Mixture

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Chemical name	Weight-%	ENCS	ISHL No.	CAS No.
Silica	1-5	(1)-548	-	-
Toluene	0.1-1	(3)-2	(3)-2 2-(8)-869	108-88-3
Cumene	0.1-1	(3)-32,(3)-22	(3)-32,(3)-22	98-82-8
Methacrylic acid ester, Filler	90<	-	-	-

Industrial Safety and Health Law

Law Name	Chemical Name in Regulation	Ordinance Number
Harmful Substances Whose Names Are to be Indicated on the Label (Law Art.57, Para.1, Enforcement Order Art.18 Item 1, Item 2, Attached Table No.9)	Crystalline silica	312
Notifiable Substances (Law Art.57-2, Enforcement Order Art.18-2 Item 1, Item 2, Attached Table No.9)	Cumene	138
Notifiable Substances (Law Art.57-2, Enforcement Order Art.18-2 Item 1, Item 2, Attached Table No.9)	Crystalline silica	312
Notifiable Substances (Law Art.57-2, Enforcement Order Art.18-2 Item 1, Item 2, Attached Table No.9)	Toluene	407

Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc

Law Name	Chemical Name in Regulation	Ordinance Number
Priority Assessment Chemical Substances (Law Article 2, Para.5)	Toluene	46
Priority Assessment Chemical Substances (Law Article 2, Para.5)	Cumene	126

Section 4: FIRST AID MEASURES

Inhalation	Remove to fresh air. Seek immediate medical attention/advice.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In the case of skin irritation or allergic reactions see a physician.
Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Seek immediate medical attention/advice.
Ingestion	Rinse mouth. Get medical attention.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing media	Water spray (fog) Carbon dioxide (CO ₂) Extinguishing powder Alcohol resistant foam Sand
Specific hazards arising from the chemical	May generate irritate, harmful gas.
Special extinguishing media	Wear protection gear and extinguish from windward.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear appropriate protection gear (Refer to Section 8) and avoid eye and skin contact.
Environmental precautions	Keep out of waterways. Avoid release to the environment.

Methods for containment In case of small spill, absorb the spill in dry sand, soil or cloth and keep in closed container. In case of large spill, surround the spill by bank to prevent from leakage, and collect the spill after it is moved to safety place.

Prevention of secondary hazards Keep ignition source away from spill.

Section 7: HANDLING AND STORAGE

Handling

Precautions for safe handling

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

Local and general ventilation Take equipment measures listed in Section 8. Wear protection gear.

Storage

Storage conditions Close lid. Avoid direct sun light and ignition source. Keep appropriate temperature.

Material of vessels and packaging Keep this product in original container. Do not put it back in the container.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure guidelines

Chemical name	Japan	ISHL Working Environmental Evaluation Standards - Administrative Control Levels	ACGIH TLV
Toluene	TWA: 50 ppm TWA: 188 mg/m ³ Skin ISHL/ACL: 20 ppm	ISHL/ACL: 20 ppm	TWA: 20 ppm
Cumene	-	-	TWA: 50 ppm

Engineering 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 appropriate protection glove (Made from non-permeable material such as polyethylene, rubber)
- Eye/face protection** Wear safety glasses with side shields (or goggles)
- Skin and body protection** Wear protection apron, protection boots. Wear long sleeve cloth.

Other information Wash hands thoroughly after handling. When using do not eat, drink or smoke.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state Paste

Odor Distinct odor

Color White-Light yellow

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
pH	No data available	
Melting point/freezing point	No data available	
Boiling point / boiling range	No data available	
Flash point	Not flammable	
Evaporation rate	No data available	
Flammability (solid, gas)		
Flammability limit in air		
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Specific gravity	1.08	
Water solubility	Slightly soluble	

Autoignition temperature	No data available
Decomposition temperature	No data available
Dynamic viscosity	50 Pa·s

Section 10: STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Possibility of hazardous reactions	React with strong acid. Could cause fire.
Conditions to avoid	Heat
Incompatible materials	No information available.
Hazardous decomposition products	May generate harmful gas by incineration

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document
Inhalation LC50 No data available as this product.

Numerical measures of toxicity - Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Toluene	= 2600 mg/kg (Rat)	= 12000 mg/kg (Rabbit)	= 12.5 mg/L (Rat) 4 h
Cumene	= 1400 mg/kg (Rat)	= 12300 µL/kg (Rabbit)	= 39000 mg/m ³ (Rat) 4 h > 3577 ppm (Rat) 6 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No data available as this product.
Serious eye damage/eye irritation	No data available as this product.
Sensitization	No data available as this product.
Germ cell mutagenicity	No data available as this product.
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen

Chemical name	Japan	IARC
Toluene		Group 3
Cumene	2	Group 2B

Reproductive toxicity	No data available as this product.
STOT - single exposure	No data available as this product.
STOT - repeated exposure	No data available as this product.
Aspiration hazard	No data available as this product.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Acute aquatic hazard	No data available as this product.
Chronic aquatic hazard	No data available as this product.

Chemical name	Algae/aquatic plants	Fish	Crustacea
Toluene	12.5: 72 h <i>Pseudokirchneriella subcapitata</i> mg/L EC50 static 433: 96 h <i>Pseudokirchneriella</i>	11.0 - 15.0: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 14.1 - 17.16: 96 h	11.5: 48 h <i>Daphnia magna</i> mg/L EC50 5.46 - 9.83: 48 h <i>Daphnia</i>

	<i>subcapitata mg/L EC50</i>	<i>Oncorhynchus mykiss mg/L LC50 static 15.22 - 19.05: 96 h Pimephales promelas mg/L LC50 flow-through 5.89 - 7.81: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 50.87 - 70.34: 96 h Poecilia reticulata mg/L LC50 static 12.6: 96 h Pimephales promelas mg/L LC50 static 28.2: 96 h Poecilia reticulata mg/L LC50 semi-static 5.8: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 54: 96 h Oryzias latipes mg/L LC50 static</i>	<i>magna mg/L EC50 Static</i>
Cumene	<i>2.6: 72 h Pseudokirchneriella subcapitata mg/L EC50</i>	<i>6.04 - 6.61: 96 h Pimephales promelas mg/L LC50 flow-through 2.7: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 4.8: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 5.1: 96 h Poecilia reticulata mg/L LC50 semi-static</i>	<i>0.6: 48 h Daphnia magna mg/L EC50 7.9 - 14.1: 48 h Daphnia magna mg/L EC50 Static</i>

Persistence and degradability No data available as this product.

Bioaccumulation

No data available as this product.

Component Information

Chemical name	Partition coefficient
Toluene	2.7
Cumene	3.7

Endocrine disruptor information No data available as this product.

Section 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.

Section 14: TRANSPORT INFORMATION

IMDG Not regulated

ICAO/IATA (air) Not regulated

ADR Not regulated

Japanese regulations

Marine Transportation Safety Act Not applicable

Civil Aeronautics Act Not applicable

Section 15: REGULATORY INFORMATION

Fire protection law criteria Non-hazardous material

Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc Priority Assessment Chemical Substances (Law Article 2, Para.5)

<u>Industrial Safety and Health Law</u>	Harmful Substances Whose Names Are to be Indicated on the Label (Law Art.57, Para.1, Enforcement Order Art.18 Item 1, Item 2, Attached Table No.9) Notifiable Substances (Law Art.57-2, Enforcement Order Art.18-2 Item 1, Item 2, Attached Table No.9) Working Environment Evaluation Standards, Administrative Control Levels (Law Art.65-2, Para.1) Dangerous Substances - Explosive Substance (Enforcement Order Attached Table 1 Item 1) Dangerous Substances - Flammable Substance (Enforcement Order Attached Table 1 Item 4)
--	--

Section 16: OTHER INFORMATION

Issue date 13-Oct-2017

Other information Please contact to local sales offices for further information.

Key literature references and sources for data

- JIS Z 7253:2012 Hazard communication of chemicals based on GHS-Labeling and Safety Data Sheet(SDS)
- JIS Z 7252:2014 Classification of chemicals based on "Globally Harmonized System of Classification and Labeling of Chemicals (GHS)"

Disclaimer

Handle with care. The data in this document is not guaranteed. This information may be revised based on new findings or test results. This data sheet is authored in accordance with Japanese regulations.