

Signal word : Warning	
Hazard statement : Flammable liquid and vapour	(H226)
Precautionary statement [Prevention]	
Keep out of reach of children.	(P102)
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.	(P210)
Wash hands thoroughly after handling.	(P264)
[Response]	
In case of fire : Use dry chemical powder, foam or carbon dioxide to extinguish.	(P370+P378)
IF IN EYES : Rinse cautiously with water for several minutes.	(P305+P351+P3
Remove contact lenses, if present and easy to do. Continue rinsing.	
If eye irritation persists : Get medical advice and attention.	(P337+P313)
IF ON SKIN (or hair) : Take off immediately all contaminated clothing. Rinse skin with water. 【Storage】	(P303+P361+P3
Store in a well-ventilated place. Keep container tightly closed. 【Disposal】	(P403+P233)
Dispose of contents and container in accordance with local regulations.	(P501)

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture Ingredients :

Chemical Name / Generic name	Composition weight %	CAS Registry No.	Hazard Class (category)	Hazard statement
Ethanol	1 ~ 10	64-17-5	Flam. Liq. 2	H225
Water	55 ~ 65	7732-18-5	none	none
Synthetic resin	5 ~ 15	Confidential	none	none
Titanium dioxide	10 ~ 20	13463-67-7	none	none
Pigment	1 ~ 10	Confidential	none	none
Others	1 ~ 10	Confidential	none	none
total	100			

SECTION 4 FIRST-AID MEASURES

- **IF INHALED** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Consult a doctor if symptoms persist.
- **IF ON SKIN** : Remove / Take off immediately all contaminated clothing. Wash with soap and water. If skin irritation/rash occurs or feel unwell, consult a doctor for medical advice.
- **IF IN EYES** : 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 SWALLOWED** : After rinse mouth immediately, give about 250 ml of water or milk and thin in the stomach, and do not vomit forcibly. Moreover, do not give anything from the mouth to the patient when not conscious. Receive the doctor's treatment (stomach pump) promptly.

SECTION 5 FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA : Dry chemical powder, foam or carbon dioxide

UNSUITABLE EXTINGUISHING MEDIA : None

SPECIFIC EXTINCTION METHOD

For initial stage extinction, carbon dioxide or dry chemical powder.

When a fire extends, fire is extinguished by a large amount of water spray.

Do not discharge extinguishing waters into the aquatic environment.

SPECIAL PROTECTIVE FOR FIRE- FIGHTERS

In the extinction work, an appropriate protective equipment (gloves, glasses, and mask) has to be worn. Because during a fire, hazardous gases may be generated, fire-fighters have to wear self-contained breathing apparatus and other protective equipment.

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Evacuate personnel to safe area. Shut off all sources of ignition.

No Flares, smoking or flame in area. Put on protective equipment. Ensure adequate ventilation.

ENVIRONMENTAL PRECAUTIONS

Do not throw the leakage thing directly into environment

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

In case of a small spill, remove by absorbing with absorbents (sawdust, soil, sand, waste cloth, etc.), and then wipe off the waste well with waste cloth, and rag.

In case of large spills, prevent leakage by enclosing with nonflammables (earth and sand, etc.)

and collect into empty container by scoop, suction equipment or the like.

SECONDARY ACCIDENT PREVENTION MEASURE

All ignition sources should be quickly removed. (No smoking in vicinity, prohibit sparks or fire sources.)

SECTION 7 HANDLING AND STORAGE

Handling	: Use with adequate ventilation.
	Avoid contact with skin, eyes and clothing.
	Obtain special instructions before use.
	Do not handle until all safety precautions have been read and understood.
	Do not eat, drink or smoke when using this product.
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: Keep containers tightly closed and store in a cool and dry place. Storage Keep away from heat and flame, ignition source and sunlight. Keep out of the reach of children.

EXPOSURE CONTROLS AND PERSONAL PROTECTION SECTION 8

OCCUPATIONAL EXPOSURE LIMIT ACGIH (2020) Ethanol STEL 1,000 ppm 10 mg/m^3 Titanium dioxide TWA OSHA PEL Ethanol TWA 1,000 ppm 15 mg/m^3 Titanium dioxide TWA DIRECTIVE 2000/39/EC None Japan Society for Occupational Health (2020) Titanium dioxide Dusts Class 2 OEL (total dust) 4 mg/m^3 PERSONAL PROTECTION : Use with local exhaust ventilation, when in long use. Respiratory Protection Avoid breathing vapours. Wear mask to prevent organic gas, if necessary. Hand Protection : Avoid contact with hands. Wear safety gloves, if necessary. Eye Protection : Avoid contact with eyes. Wear safety glasses, if necessary. Skin Protection : Avoid skin contact. Wear personal protection apron, boots, if necessary.

SECTION 9	PHYSICAL AND CHEMICAL PROPERTIES		
Appearance	: Red liquid		
Odour	: None		
рН	: No data available		
Boiling point	: 78 ~ 100 °C		
Flash point	: 44 °C (closed cup)	Not sustained combustibility ; Refer to section14	
Relative Density	y (at 25°C) : 1.1~1.3 (g/cm ³)		

SECTION 10	STABILITY AND	REACTIVITY
Stability		: Stable under normal handling.
Conditions to A	void	: High temperature, Direct sunlight, Fire
Incompatible M	aterials	: Strong oxidising agents
Hazardous Dec	omposition Products	: CO, CO ₂
SECTION 11	TOXICOLOGICA	L INFORMATION

Acute toxicity	:LD/LC50 values tha [Ethanol]	at are releva	ant for classification
	Oral-rat	LD50	>5,000 mg/kg
	Inhalation-rat	LC50	>20 mg/L/4h

: Soluble

Solubility in Water

Carcinogenicity : Titanium dioxide has been classified by the IARC as Group 2B. Other materials ; Not contain any component that is considered a human carcinogen by IARC, ACGIH, EPA, EU or NTP.

Regarding the carcinogenicity of titanium dioxide, International Agency for Research on Cancer (IARC) has classified as a group 2B. However, ACGIH(American Conference of Governmental Industrial Hygienists), EPA(Environmental Protection Agency), EU (European Chemicals Agency), NTP (National Toxicology Program, USA) in the classification of suspected carcinogenic to humans has not been done. Therefore, as the ink product we could not classify the carcinogenicity of GHS from that there is no sufficient data.

SECTION 12	ECOLOGICAL INFORMATION		
Hazardous to the	e aquatic environment (acute)	:	Classification not possible
Hazardous to the	e aquatic environment (chronic)	:	Classification not possible
Hazardous to the	e ozone layer	:	Classification not possible
Hazardous to the	e aquatic environment (chronic)	:	Classification not possible

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal must be made according to official regulations. Comply with all Federal, State, and Local regulations regarding disposal. **Do not allow product to reach ground, any water course or sewage system.**

SECTION 14 TRANS	PORT INFORMATION	
UN number	(DOT, ADR, IMDG, IATA)	: None
UN proper shipping name	(DOT, ADR, IMDG, IATA)	: None
UN Classification		: None
Packing group	(DOT, ADR, IMDG, IATA)	: None
Marine pollutant (Y/N)		: N
EmS number		: None

This product has passed the SUSTAINED COMBUSTIBILITY TEST prescribed in the UN Manual of Tests and Criteria, Part III, subsection 32.5.2. Liquids with a flash point of more than 35°C which do not sustain combustion need not be considered as flammable liquids. Refer to Recommendations on the TRANSPORT OF DANGEROUS GOODS, UNITED NATIONS - Seventeenth revised edition (ST/SG/AC.10/1/Rev.17) CHAPTER 2.3 CLASS 3 - FLAMMABLE LIQUIDS (see 2.3.1.2 and 2.3.1.3), IATA Dangerous Goods Regulations Section 3.3.1.3 and IMDG Code Section 2.3.1.3.

SECTION 15 REGULATORY INFORMATION

< EU Information >			
Regulation (EC) No 1272/200)8 (CLP)		
Substance name	: [Ethanol]		
Hazard Class & Category	Class & Category : Flammable liquids, Category 2		
Symbols	: GHS02		
Signal word	: Danger		
Hazard statements	: H225 Highly flammable liquid an	nd vapour	
< USA Information >			
OSHA STATUS : This produc	ct is hazardous under 29 CFR 1910.120	00.	
TSCA STATUS : All component	ents on TSCA INVENTORY.		
TSCA Hazard Communication	n Program (40 CFR Part 721) (SNUR)	: Not Applicable	
CERCLA REPORTABLE QUANTITY (40 CFR 117,302)		: Not Applicable	
SARA TITLE III Section 313	(40 CFR 372)	: Not Applicable	
California Proposition 65		: Titanium dioxide	
•		(airborne, unbound particles of respirable size)	

Refer to any other federal, state, EU, national and local regulations.

SECTION 16 OTHER INFORMATION



EU RoHS(Directive 2011/65/EU)EU ELV(DIRECTIVE 2000/53/EC)

This data sheet may not be enough when evaluating danger or hazard. The above information, which is created from currently available documents, information and data, may be revised when new findings announced. This document has been written on the assumption that when dealing with a large amount of ink on the business case and emergency. When handling as a normal product, please refer to the notes that is described in the produce or packaging. The information contained herein is not intended to provide any kind of warranty other than information, there is no guarantee for the accuracy of the content.