

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	45 ~ 55	7732-18-5	none	none
Synthetic resin	1 ~ 10	Confidential	none	none
Titanium dioxide	30 ~ 40	13463-67-7	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

SECTION / HAI	IDLING 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. 						
Keep away	Storage: Keep containers tightly closed and store in a cool and dry place.Keep away from heat and flame, ignition source and sunlight.Keep out of the reach of children.					
SECTION 8 EXP	OSURE CONTROLS AND PERSONAL PROTECTION					
OCCUPATIONAL EXPO	SURE LIMIT					
ACGIH (2020)						
Ethanol	STEL 1,000 ppm					
Titanium dioxide	TWA 10 mg/m ³					
OSHA PEL	T 1/4					
Ethanol	TWA 1,000 ppm					
Titanium dioxide	TWA 15 mg/m ³					
DIRECTIVE 2000/39/	EC None					
Japan Society for Oco	upational Health (2020)					
Titanium dioxide	Dusts Class 2 OEL (total dust) 4 mg/m ³					
PERSONAL PROTECT						
Respiratory Protection	 Use with local exhaust ventilation, when in long use. 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 hands, wear safety gloves, if necessary.					
Skin Protection	: Avoid contact with eyes. Wear salety glasses, in necessary.					
SECTION 9 PHY	SICAL AND CHEMICAL PROPERTIES					
Appearance	: White 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 (at 25	C) : 1.3 ~ 1.5 (g/cm ³)					
Solubility in Water	: Soluble					
SECTION 10 STA	BILITY AND REACTIVITY					
Stability	: Stable under normal handling.					
Conditions to Avoid	-					
	Incompatible Materials : Strong oxidising agents					

Hazardous Decomposition Products : CO, CO₂

SECTION 11	TOXICOLOGICA	L INFORI	MATION			
Acute toxicity	: LD/LC50 values the [Ethanol] Oral-rat Inhalation-rat	Oral-rat LD50 >5,000 mg/kg				
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 INFORMAT	ΓΙΟΝ
Hazardous to the aquatic environment (acute)	: Classification not possible
Hazardous to the aquatic environment (chronic)	: Classification not possible
Hazardous to the ozone layer	: 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	TRANSPO	ORT INFORMATION		
UN number	([DOT, ADR, IMDG, IATA)	:	None
UN proper shippi	ng name (D	DOT, ADR, IMDG, IATA)	:	None
UN Classification			:	None
Packing group	([DOT, ADR, IMDG, IATA)	:	None
Marine pollutant ((Y/N)		:	Ν
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	: Flammable liquids, Category 2			
Symbols	: GHS02			
Signal word	: Danger			
Hazard statements	: H225 Highly flammable liquid and	d vapour		
< USA Information >				
OSHA STATUS : This produc	t is hazardous under 29 CFR 1910.120	0.		
TSCA STATUS : All compone	ents on TSCA INVENTORY.			
TSCA Hazard Communication 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



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.

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