

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	50 ~ 60	7732-18-5	none	none
Synthetic resin	10 ~ 20	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

SECTION / H	ANDLING AND STORAGE					
Avoid c Obtain Do not	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.					
•	ontainers tightly closed and store in a cool and dry place.					
•	Keep away from heat and flame, ignition source and sunlight.					
кеер о	but of the reach of children.					
SECTION 8 E	EXPOSURE CONTROLS AND PERSONAL PROTECTION					
OCCUPATIONAL EX	(POSURE LIMIT					
ACGIH (2020)						
Ethanol	STEL 1,000 ppm					
Titanium dioxide	e TWA 10 mg/m ³					
OSHA PEL						
Ethanol	TWA 1,000 ppm					
Titanium dioxide	-					
DIRECTIVE 2000/39/EC None						
Japan Society for	Occupational Health (2020)					
Titanium dioxide	e Dusts Class 2 OEL (total dust) 4 mg/m ³					
PERSONAL PROTE	CTION					
Respiratory Prote	-					
	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 P	PHYSICAL AND CHEMICAL PROPERTIES					
Appearance	: Orange liquid					
Odour	: None					
рН	: No data available					
Boiling point	: 78 ~ 100 °C					
Flash point	: 44 °C (closed cup) Not sustained combustibility : Refer to section14					
•	25°C) : 1.1 ~ 1.3 (g/cm ³)					
Solubility in Water	: Soluble					
-	STABILITY AND REACTIVITY					
Stability	Stable under normal handling.					
Conditions to Avoid						
Incompatible Materi	Incompatible Materials : Strong oxidising agents					

Hazardous Decomposition Products : CO, CO₂

SECTION 11	TOXICOLOGICAL IN	OXICOLOGICAL INFORMATION				
Acute toxicity	 LD/LC50 values that are relevant for classification [Ethanol] 					
	Oral-rat Inhalation-rat	LD50 LC50	>5,000 mg/kg >20 mg/L/4h			
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	TRANSPOR	T INFORMATION		
UN number	(DOT	Г, ADR, IMDG, IATA)	:	None
UN proper shippi	ng name (DOT	r, ADR, IMDG, IATA)	:	None
UN Classification			:	None
Packing group	(DOT	r, 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 Communicatior	n Program (40 CFR Part 721) (SNUR)	: Not Applicable			
CERCLA REPORTABLE QUA	ANTITY (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)