



# SAFETY DATA SHEET

According to OSHA Hazcom Standard 29 CFR 1910.1200

YY913-BLUE

## 1. IDENTIFICATION

### A. Product name

- YY913-BLUE

### B. Recommended use and restriction on use

- General use : Tinter
- Restriction on use : Do not use except for purpose

### C. Manufacturer / Supplier / Distributor information

#### o Manufacturer information

- Company name : KCC Corporation
- Address : 30, Bangeojinsunhwando-ro, Dong-gu, Ulsan
- Emergency telephone number : 82-52-280-1717

#### o Supplier/Distributor information

- Company name : KCC Corporation
- Address : 30, Bangeojinsunhwando-ro, Dong-gu, Ulsan
- Emergency telephone number : 82-52-280-1717

## 2. HAZARD IDENTIFICATION

### A. GHS Classification

- Flammable liquids : Category3
- Acute toxicity (oral) : Category5
- Acute toxicity (dermal) : Category5
- Acute toxicity (inhalation: vapor) : Category5
- Specific target organ toxicity(Single exposure) : Category3(Narcotic effects)
- Acute aquatic toxicity : Category2

### B. GHS label elements

#### o Hazard symbols



#### o Signal words

- Warning

#### o Hazard statements

- H226 Flammable liquid and vapour
- H303 May harmful if swallowed.
- H313 May be harmful if contact with skin.
- H333 May be harmful if inhaled.
- H336 May cause drowsiness and dizziness.
- H401 Toxic to aquatic organisms.

#### o Precautionary statements

##### 1) Prevention

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P233 Keep container tightly closed.
- P240 Ground and bond container and receiving equipment.

- P241 Use explosion-proof electrical/ventilating/lighting/equipment.
- P242 Use non-sparking tools.
- P243 Take action to prevent static discharges.
- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P271 Use only outdoors or in a well-ventilated area.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

#### 2) Response

- P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- P302+P312 IF ON SKIN: Call a POISON CENTER/doctor if you feel unwell.
- P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+P312 IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P312 Call a POISON CENTER or doctor/physician if you feel unwell.
- P370+P378 In case of fire: Use Suitable extinguishing media for extinction(Refer Section MSDS 5).

#### 3) Storage

- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P405 Store locked up.

#### 4) Disposal

- P501 Dispose of contents/container in accordance with local/regional/national/international regulation

### C. Other hazards which do not result in classification

- Not available

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Trade names and Synonyms	CAS No.	Content(%)
Propylene glycol methyl ether	1-Methoxy-2-hydroxypropane ; 2-Methoxy-1-methylethanol ; Alpha-propylene glycol monomethyl ether ; 1-Methoxy-2-propanol ; Propylene glycol methyl ether ; 1-Methoxy-propane-2-ol ; Methoxyisopropanol	107-98-2	46 ~ 53
2-Propanol	Isopropanol ; Dimethylcarbinol ; Isopropyl alcohol ; n-Propan-2-ol ; Propan-2-ol ; i-Propyl alcohol ; 2-Propanol	67-63-0	22 ~ 29
Copper, phthalocyanine	Phthalocyanine blue 15 ; a-Phthalocyanine ; b-Phthalocyanine blue ; Copper, [29H,31H-phthalocyaninato(2-)-kN29,kN30,kN31,kN32]-, (SP-4-1)- ; Tetrabenz-5,10,15,20-diazaporphyrinephthalocyanine ;	147-14-8	16 ~ 23
Polyvinyl acetate polyvinyl pyrrolidone	Not available	63148-65-2	1 ~ 8

### 4. FIRST AID MEASURES

#### A. Eye contact

- Do not rub your eyes.
- Immediately flush eyes with plenty of water for at least 15 minutes and call a doctor/physician.
- Get medical attention immediately.

#### B. Skin contact

- Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
- Wash contaminated clothing thoroughly before re-using.
- Get medical attention immediately.

#### C. Inhalation contact

- Take specific treatment if needed.
- When exposed to large amounts of steam and mist, move to fresh air.
- Get medical attention immediately.

#### D. Ingestion contact

- Please be advised by doctor whether induction of vomit is demanded or not.

- Rinse your mouth with water immediately.
- Get medical attention immediately.

#### **E. Delayed and immediate effects and also chronic effects from short and long term exposure**

- Not available

#### **F. Notes to physician**

- Notify medical personnel of contaminated situations and have them take appropriate protective measures.

### **5. FIREFIGHTING MEASURES**

#### **A. Suitable (Unsuitable) extinguishing media**

- Avoid use of water jet for extinguishing
- Dry chemical, carbon dioxide, regular foam extinguishing agent, spray

#### **B. Specific hazards arising from the chemical**

- Flammable liquid and vapour
- May be harmful if contact with skin.
- May be harmful if inhaled.
- May cause drowsiness and dizziness.
- May harmful if swallowed.

#### **C. Special protective actions for firefighters**

- Avoid inhalation of materials or combustion by-products.
- Cool containers with water until well after fire is out.
- Do not approach the tank surrounded by fire until it is extinguished.
- In case of conflagration, use automatic fire sprinkler. Major fire may require withdrawal, allowing the object itself to burn.
- Keep unauthorized personnel out.

### **6. ACCIDENTAL RELEASE MEASURES**

#### **A. Personal precautions, protective equipment and emergency procedures**

- Do not touch spilled material. Stop leak if you can do it without risk.
- Handle the damaged containers or spilled material after wearing appropriate protective equipment
- Move container to safe area from the leak area.
- Must work against the wind, let the upwind people to evacuate.
- Remove all sources of ignition.

#### **B. Environmental precautions**

- If large amounts have been spilled, inform the relevant authorities.
- Prevent runoff and contact with waterways, drains or sewers.

#### **C. Methods and materials for containment and cleaning up**

- Appropriate container for disposal of spilled material collected.
- Dike for later disposal.
- Disposal of waste shall be in compliance with the Wastes Control Act
- Large spill : Stay upwind and keep out of low areas. Dike for later disposal.
- Notify the central and local government if the emission reach the standard threshold.

### **7. HANDLING AND STORAGE**

#### **A. Precautions for safe handling**

- Avoid contact with incompatible materials.
- Avoid direct physical contact.
- Comply with all applicable laws and regulations for handling
- Dealing only with a well-ventilated place.
- Do not handle until all safety precautions have been read and understood.

#### **B. Conditions for safe storage, including any incompatibilities**

- Avoid direct sunlight.

- Check regularly for leaks.
- Do not apply any physical shock to container.
- Do not apply direct heat.
- Do not use damaged containers.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### A. Exposure limits

- **ACGIH TLV**
  - [Propylene glycol methyl ether] : TWA, 50 ppm (184 mg/m<sup>3</sup>), STEL, 100 ppm (369 mg/m<sup>3</sup>)
  - [2-Propanol] : TWA, 200 ppm (491 mg/m<sup>3</sup>), STEL, 400 ppm (984 mg/m<sup>3</sup>)
- **OSHA PEL**
  - [2-Propanol] : 980

### B. Engineering controls

- Business owner is recommended to maintain below recommended exposure limits for the working place with general exhaust of gas/vapour/mist/fume.

### C. Individual protection measures, such as personal protective equipment

- **Respiratory protection**
  - Any air-purifying respirator with a full facepiece and an organic vapor canister.
  - Any chemical cartridge respirator with a full facepiece and organic vapor cartridge(s).
  - Any chemical cartridge respirator with organic vapor cartridge(s).
  - Consider warning properties before use.
  - For Unknown Concentration or Immediately Dangerous to Life or Health : Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply. Any self-contained breathing apparatus with a full facepiece.
  - Respiratory protection is ranked in order from minimum to maximum.
  - Under conditions of frequent use or heavy exposure, Respiratory protection may be needed.
- **Eye protection**
  - Provide an emergency eye wash station and quick drench shower in the immediate work area.
  - Wear primary eye protection such as splash resistant safety goggles with a secondary protection face shield.
- **Hand protection**
  - Wear appropriate chemical resistant glove.
- **Skin protection**
  - Wear appropriate chemical resistant protective clothing.
- **Others**
  - Not available

## 9. PHYSICAL AND CHEMICAL PROPERTIES

A. Appearance	
- Appearance	Liquid(Viscous liquid)
- Color	Blue
B. Odor	Solvent odor
C. Odor threshold	Not available
D. pH	Not available
E. Melting point/Freezing point	Not available
F. Initial Boiling Point/Boiling Ranges	Not available
G. Flash point	33°C
H. Evaporation rate	Not available
I. Flammability(solid, gas)	Not available
J. Upper/Lower Flammability or explosive limits	2% / 13.8%
K. Vapour pressure	Not available
L. Solubility	Not available
M. Vapour density	> 1(Air=1)
N. Specific gravity(Relative density)	0.955~0.995
O. Partition coefficient of n-octanol/water	Not available
P. Autoignition temperature	287~460

Q. Decomposition temperature	Not available
R. Viscosity	75 ~ 81
S. Molecular weight	Not available

## 10. STABILITY AND REACTIVITY

### A. Chemical Stability

- This material is stable under recommended storage and handling conditions.

### B. Possibility of hazardous reactions

- Cylinders exposed to fire may vent and release flammable gas.

### C. Conditions to avoid

- Avoid : Accumulation of electrostatic charges, Heating, Flames and hot surfaces
- Avoid contact with incompatible materials and condition.
- Avoid contact with heat, sparks, flame or other ignition sources.

### D. Incompatible materials

- Not available

### E. Hazardous decomposition products

- May emit flammable vapour if involved in fire.

## 11. TOXICOLOGICAL INFORMATION

### A. Information on the likely routes of exposure

- **Respiratory tracts**
  - Not available
- **Oral**
  - May harmful if swallowed.
- **Eye/Skin**
  - Not available

### B. Delayed and immediate effects and also chronic effects from short and long term exposure

- **Acute toxicity**
  - \* **Oral**
    - Product (ATEmix) : 2000mg/kg < ATEmix <= 5000mg/kg
    - [Propylene glycol methyl ether] : LD50 4016 mg/kg Rat (ECHA)
    - [2-Propanol] : LD50 5840 mg/kg Rat (OECD TG 401)(ECHA)
    - [Copper, phthalocyanine] : LD50 > 6400 mg/kg Rat (IUCLID)
    - [Polyvinyl acetate polyvinyl pyrrolidone] : LD50 >10000 mg/kg Rat (RTECS)
  - \* **Dermal**
    - Product (ATEmix) : 2000mg/kg < ATEmix <= 5000mg/kg
    - [Propylene glycol methyl ether] : LD50 >2000 mg/kg Rabbit (ECHA)
    - [2-Propanol] : LD50 12800 mg/kg Rabbit (OECD TG402)(ECHA)
    - [Copper, phthalocyanine] : LD50 >5000 mg/kg Rabbit (OECD TG 402) (ECHA)
    - [Polyvinyl acetate polyvinyl pyrrolidone] : LD50 >7940 mg/kg Rabbit (RTECS)
  - \* **Inhalation**
    - Product (ATEmix) : 20.0mg/L < ATEmix <= 50.0mg/L
    - [Propylene glycol methyl ether] : Vapor LC0 > 7000 ppm 6 hr Rat No death (OECD TG 403, GLP) (ECHA)
    - [2-Propanol] : LC50 >10000 ppm 6 hr (>30.1 mg/L/4h) Rat (OECE TG 403, GLP)(ECHA)
- **Skin corrosion/irritation**
  - Not available
- **Serious eye damage/irritation**
  - Not available
- **Respiratory sensitization**
  - Not available
- **Skin sensitization**
  - Not available

- **Carcinogenicity**
  - \* **IARC**
    - [2-Propanol] : Group 3
  - \* **OSHA**
    - Not available
  - \* **ACGIH**
    - [Propylene glycol methyl ether] : A4
    - [2-Propanol] : A4
  - \* **NTP**
    - Not available
  - \* **EU CLP**
    - Not available
- **Germ cell mutagenicity**
  - Not available
- **Reproductive toxicity**
  - Not available
- **STOT-single exposure**
  - May cause drowsiness and dizziness.
- **STOT-repeated exposure**
  - Not available
- **Aspiration hazard**
  - Not available

## 12. ECOLOGICAL INFORMATION

### A. Ecotoxicity

- **Fish**
  - [Propylene glycol methyl ether] : LC50 4600-10000 mg/l 96 hr *Leuciscus idus* (Static) (ECHA)
  - [2-Propanol] : LC50 9640 mg/l 96 hr *Pimephales promelas*(OECD Guideline 203)(ECHA)
  - [Copper, phthalocyanine] : LC50 >100 mg/l 96 hr *Brachydanio rerio* (Static, read-across 27614-71-7, OECD Guideline 203. GLP) (ECHA)
- **Crustaceans**
  - [Propylene glycol methyl ether] : EC50 21100 ~ 25900 mg/l 48 hr *Daphnia magna*(Static, GLP) (ECHA)
  - [2-Propanol] : LC50 5102 mg/l 24 hr *Daphnia magna*(OECD TG 202) (ECHA)
  - [Copper, phthalocyanine] : EC50 500 mg/l 48 hr *Daphnia magna*(EU Method C.2) (ECHA)
- **Algae**
  - [Propylene glycol methyl ether] : EC50 >500 mg/l 72 hr *Selenastrum capricornutum*(Static) (ECHA)
  - [2-Propanol] : EC50 = 2.2 mg/l 96 hr EC50 1800 mg/l 7 day Other(*Scenedesmus quadricauda*, reliability: 2)(ECHA)
  - [Copper, phthalocyanine] : EC50 >100 mg/l 72 hr Other(*Desmodesmus subspicatus*, read-across 1328-53-8. OECD TG 201, GLP) (ECHA)

### B. Persistence and degradability

- **Persistence**
  - [Propylene glycol methyl ether] : log Kow -0.49 (Estimate) (HSDB)
  - [2-Propanol] : log Pow 0.05 (ECHA)
  - [Copper, phthalocyanine] : -1.6 ~ -1 (23°C) (ECHA)
- **Degradability**
  - [2-Propanol] : (BOD5/COD ratio ≥ 0.5, biodegrades immediately, EU Method C.5) (ECHA)

### C. Bioaccumulative potential

- **Bioaccumulative potential**
  - [Copper, phthalocyanine] : BCF = 0.33 ~ 11 (OECD 305C, IUCLID)
- **Biodegradation**
  - [Propylene glycol methyl ether] : 96 % 28 day (OECD Guideline 301 E, GLP) (ECHA)
  - [2-Propanol] : immediately biodegradable (EU Method C.5) (ECHA)
  - [Copper, phthalocyanine] : < 1 %, 28 day (O2 Consumption, OECD TG 301F) (ECHA)

### D. Mobility in soil

- [2-Propanol] : log Koc= 0.03 (SIDS)

**E. Other adverse effects**

- [2-Propanol] : Algae: 7d-other: Toxicity threshold *Scenedesmus quadricauda* = 1 800 mg/L (ECHA)
- [Copper, phthalocyanine] : Crustaceans (*Daphnia magna*): NOEC(21d)  $\geq 1$  mg/L (Semi-static, read-across 7646-85-7) (ECHA) water solubility : 4~9 ug/L

**13. DISPOSAL CONSIDERATIONS****A. Disposal methods**

- It shall be treated by incineration
- Oil water separation technology shall be applied as pre-waste treatment if it is applicable
- Stabilization and minimization treatment by incineration or similar method can be applied, if more than two kinds of designated wastes are in mixture state and it is impractical to separate them
- High temperature incinerate
- After taking off organic solvents that are supposed to be recycled, incinerate the rest of them at a high degree.

**B. Special precautions for disposal**

- Anyone with business license number who generates industrial wastes shall treat the waste by him/herself or by entrusting to the legal entities who treat the wastes, recycle the wastes of others or install and operate the waste treatment facilities according to the Wastes Control Act
- Dispose of waste in accordance with all applicable laws and regulations.

**14. TRANSPORT INFORMATION****A. UN No. (IMDG CODE/IATA DGR)**

- 1263

**B. Proper shipping name**

- PAINT INCLUDING PAINT, LACQUER, ENAMEL, STAIN, SHELLAC SOLUTIONS, VARNISH, POLISH, LIQUID FILLER, AND LIQUID LACQUER BASE

**C. Hazard Class**

- 3

**D. IMDG CODE/IATA DGR Packing group**

- III

**E. Marine pollutant**

- Not applicable

**F. Special precautions for user related to transport or transportation measures**

- Local transport follows in accordance with Dangerous goods Safety Management Law.
- Package and transport follow in accordance with Department of Transportation (DOT) and other regulatory agency requirements.
- EmS FIRE SCHEDULE : F-E (Non-water-reactive flammable liquids)
- EmS SPILLAGE SCHEDULE : S-E (Flammable liquids, floating on water)

**15. REGULATORY INFORMATION****A. National and/or international regulatory information**

- o **POPs Management Law**
  - [Propylene glycol methyl ether] : Not applicable
  - [2-Propanol] : Not applicable
  - [Copper, phthalocyanine] : Not applicable
  - [Polyvinyl acetate polyvinyl pyrrolidone] : Not applicable
- o **Information of EU Classification**
  - \* **Classification**
    - [Propylene glycol methyl ether] : H226,H336
    - [2-Propanol] : H225,H319,H336
- o **U.S. Federal regulations**
  - \* **OSHA PROCESS SAFETY (29CFR1910.119)**
    - Not applicable
  - \* **CERCLA Section 103 (40CFR302.4)**

- Not applicable
- \* **EPCRA Section 302 (40CFR355.30)**
  - Not applicable
- \* **EPCRA Section 304 (40CFR355.40)**
  - Not applicable
- \* **EPCRA Section 313 (40CFR372.65)**
  - [2-Propanol] : Applicable
  - [Propylene glycol methyl ether] : Not applicable
  - [Copper, phthalocyanine] : Not applicable
  - [Polyvinyl acetate polyvinyl pyrrolidone] : Not applicable
- o **Rotterdam Convention listed ingredients**
  - Not applicable
- o **Stockholm Convention listed ingredients**
  - Not applicable
- o **Montreal Protocol listed ingredients**
  - Not applicable

## 16. OTHER INFORMATION

### A. Reference

- The information contained herein is believed to be accurate. It is provided independently of any sale of the product for purpose of hazard communication. It is not intended to constitute performance information concerning the product. No express warranty, or implied warranty of merchantability or fitness for a particular purpose is made with respect to the product or the information contained herein.
- This Safety Data Sheet was compiled with data and information from the following sources: KOSHA, NITE, ESIS, NLM, SIDS, IPCS

### B. Issue date

- 2013-06-25

### C. Revision number and Last date revised

- 5 times, 2022-07-26

### D. Other

- This SDS is prepared according to the Globally Harmonized System (GHS).