

GHS Safety Data Sheet

PANAX BLUE SM

1. IDENTIFICATION

A. Product name

- PANAX BLUE SM

B. Recommended use and restriction on use

- General use : Colorant
- Restriction on use : Unknown

C. Supplier information

- Company name : UKSEUNG CHEMICAL CO., LTD.
- Address : 174, Gaejwa-ro, Geumjeong-gu, Busan, Korea
- Telephone number : +82-51-718-5340, 5345

2. HAZARD IDENTIFICATION

A. GHS Classification

- No need to classify according to GHS criteria.

B. GHS label elements

- Hazard symbols
 - None
- Signal words
 - None
- Hazard statements
 - No specific dangers known, if the regulations for storage and handling are considered.
- Precautionary statements
 - 1) Prevention : -
 - 2) Response : -
 - 3) Storage : -
 - 4) Disposal : -

C. Other hazards which do not result in classification : (NFPA Classification)

- NFPA grade (0 ~ 4 level)
 - Health : 1 , Flammability : 1, Reactivity : 0

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | Trade names and Synonyms | CAS No. | Content(%) |
|-----------------------------------------------------|-------------------------------------------------|----------|------------|
| 29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32 copper | C.I. Pigment Blue 15:3, Copperphthalocyanine | 147-14-8 | 100 |

4. FIRST AID MEASURES

A. Eye contact

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

B. Skin contact

- Flush skin with plenty of wter for at least 15 minutes while removing contaminated clothing and shoes.

- Laundering enough contaminated clothing before reuse.

C. Inhalation contact

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

D. Ingestion contact

- About whether I should induce vomiting Take the advice of a doctor.
- Rinse your mouth with water 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

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

B. Specific hazards arising from the chemical

- Not available

C. Special protective actions for firefighters

- Move containers from fire area, if you can do without the risk.
- Cool containers with water until well after fire is out.
- Do not access if the tank on fire.
- Wear appropriate protective equipment.
- Keep containers cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

A. Personal precautions, protective equipment and emergency procedures

- Wear proper personal protective apparatus as indicated in Section 8 and avoid skin contact and inhalation.
- Must work against the wind, let the upwind people to evacuate.
- Remove all sources of ignition.
- Handling the damaged containers or spilled material after wearing protective equipment.

B. Environmental precautions

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

C. Methods and materials for containment and cleaning up

- Large spill : Stay upwind and keep out of low areas. Dike for later disposal.
- Notification to central government, local government. When emissions at least of the standard amount
- Dispose of waste in accordance with local regulation.
- Appropriate container for disposal of spilled material collected.
- Small liquid state spills: Appropriate container for disposal of spilled material collected.
- For disposal of spilled material in appropriate containers collected and clear surface.
- Prevent the influx to waterways, sewers, basements or confined spaces.

7. HANDLING AND STORAGE

A. Precautions for safe handling

- Avoid contact with incompatible materials.

- Comply with all applicable laws and regulations for handling
- Refer to Engineering controls and personal protective equipment.
- Operators should wear antistatic footwear and clothing.

B. Conditions for safe storage, including any incompatibilities

- Do not use damaged containers.
- Avoid direct sunlight.
- Keep in the original container.
- Please pay attention to incompatibilities materials and conditions to avoid.
- No open fire.
- Collected them in sealed containers.
- Store away from water and sewer.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

A. Exposure limits

- **ACGIH TLV**
 - TWA 1 mg/m³
- **OSHA PEL**
 - Not available

B. Engineering controls

- A system of local and/or general exhaust is recommended to keep employee exposures above the Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. The use of local exhaust ventilation is recommended to control emissions near the source.

C. Individual protection measures, such as personal protective equipment

- **Respiratory protection**
 - Under conditions of frequent use or heavy exposure, Respiratory protection may be needed.
 - Respiratory protection is ranked in order from minimum to maximum.
 - Consider warning properties before use.
 - Dust, mist, fume-purifying respiratory protection
 - Any air-purifying respirator with a corpuscle filter of high efficiency
 - Any respiratory protection with a electromotion fan(for dust, mist, fume-purifying)
 - Self-contained breathing apparatus with a corpuscle filter of high efficiency
 - 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.
- **Eye protection**
 - Wear primary eye protection such as splash resistant safety goggles with a secondary protection face shield.
 - Provide an emergency eye wash station and quick drench shower in the immediate work area.
- **Hand protection**
 - Wear appropriate glove.
- **Skin protection**
 - Wear appropriate clothing.
- **Others**
 - Not available

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|-----------------------------------------|--------------------|
| A. Appearance | |
| - Appearance | Solid (Powder) |
| - Color | Blue |
| B. Odor | Not available |
| C. Odor threshold | Not available |
| D. pH | 6~8 |
| E. Melting point/Freezing point | 480 °C (101.3 kPa) |
| F. Initial Boiling Point/Boiling Ranges | Not available |

| | |
|-------------------------------------------------|----------------|
| G. Flash point | Not available |
| H. Evaporation rate | Not available |
| I. Flammability(solid, gas) | Not available |
| J. Upper/Lower Flammability or explosive limits | Not available |
| K. Vapour pressure | < 0 hPa (20°C) |
| L. Solubility | Not available |
| M. Vapour density | Not available |
| N. Specific gravity(Relative density) | 1.5 |
| O. Partition coefficient of n-octanol/water | 6.6 |
| P. Autoignition temperature | Not available |
| Q. Decomposition temperature | Not available |
| R. Viscosity | Not available |
| S. Molecular weight | 576.08 |

10. STABILITY AND REACTIVITY

A. Chemical Stability

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

B. Possibility of hazardous reactions

- Hazardous Polymerization will not occur.

C. Conditions to avoid

- Avoid contact with incompatible materials and condition.
- Avoid : Accumulation of electrostatic charges, Heating, Flames and hot surfaces

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)**
 - Not available
- **(Eye·Skin)**
 - Not available

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

- **Acute toxicity**
 - * **Oral**
 - LD50 > 6400 mg/kg, Rat (OECD TG 401)
 - * **Dermal**
 - LD50 > 5000 mg/kg Rabbit (OECD TG 402)
 - * **Inhalation**
 - LD50 > 5000 mg/kg, Rabbit (OECD TG 402)
- **Skin corrosion/irritation**
 - Not irritating to skin
- **Serious eye damage/irritation**
 - Not irritating to skin eyes
- **Respiratory sensitization**
 - Not available
- **Skin sensitization**
 - Not available

- **Carcinogenicity**
 - * **IARC**
 - Not available
 - * **OSHA**
 - Not available
 - * **ACGIH**
 - Not available
 - * **NTP**
 - Not available
 - * **EU CLP**
 - Not available
- **Germ cell mutagenicity**
 - Not available
- **Reproductive toxicity**
 - Not available
- **STOT-single exposure**
 - Not available
- **STOT-repeated exposure**
 - Not available
- **Aspiration hazard**
 - Not available

12. ECOLOGICAL INFORMATION

A. Ecotoxicity

- **Fish**
 - NOEC \geq 100 mg/l 96 hr (OECD TG 203)
- **Crustaceans**
 - EC₀ \geq 500 mg/l 48 hr Daphnia magna (The test follows the EU Directive 79/831/EEC)
- **Algae**
 - EC₅₀ $>$ 100 mg/l 72 hr (OECD TG 201)

B. Persistence and degradability

- **Persistence**
 - log K_{ow} = 6.6
- **Degradability**
 - Not available

C. Bioaccumulative potential

- **Bioaccumulative potential**
 - BCF $<$ 3.6 BCF
- **Biodegradation**
 - Biodegradability $<$ 1 (%) 28 day (O₂ Consumption, OECD TG 301F)

D. Mobility in soil

- Not available

E. Other adverse effects

- Not available

13. DISPOSAL CONSIDERATIONS

A. Disposal methods

- Since more than two kinds of designaed waste is mixed, it is difficult to treat seperatly, then can be reduction or stabilization by incineration or similar process.
- If water separation is possible, pre-process with Water separation process.
- Dispose by incineration.

B. Special precautions for disposal

- The user of this product must disposal by oneself or entrust to waste disposer or person who other's waste recycle and dispose, person who establish and operate waste disposal facilities.

- Dispose of waste in accordance with all applicable laws and regulations.

14. TRANSPORT INFORMATION

A. UN Number

- Sea transport (IMDG) : Not classified as a dangerous good under transport regulations

- Air transport (IATA) : Not classified as a dangerous good under transport regulations

B. UN proper shipping name

- Not applicable

C. Transport hazard class(es)

- Not applicable

D. Packing group

- Not applicable

E. Environmental hazards

- Not applicable

F. Special precautions for user

- None known

15. REGULATORY INFORMATION

A. National and/or international regulatory information

o POPs Management Law

- Not applicable

o Information of EU Classification

* Classification

- Not applicable

* Risk Phrases

- Not applicable

* Safety Phrase

- Not applicable

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)

- 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

- 2010-05-03

C. Revision number and Last date revised

- 9 times, 2020-01-03

D. Other

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