

SAFETY DATA SHEET

Revision : September 1, 2016

INFORMATION ON THIS FORM IS PROPRIETARY INFORMATION AND FURNISHED SOLELY FOR THE USE OF OUR CUSTOMERS.

SECTION 1 : Identification of the substance/preparation and of the company/undertaking**Product details**

Trade name : SUPER-UV ROYAL GOLD BLUISH
 MSDS number : SURGB20160901
 Application of the substance / the preparation : Printing Ink

Manufacturer/Supplier:

MITSUBOSHI PRINTING INK CO.,LTD.

HIGASHI 1-103 HAMADERAFUNAO-CHO NISHIKU SAKAI OSAKA 5928341 JAPAN

PHONE : +81-72-261-8250 FAX : +81-72-264-1421

EMERGENCY PHONE : +81-72-261-8250

SECTION 2 : Hazards identification**GHS Classification**

| | |
|--|-----------------------------|
| <u>Physical hazards</u> | <u>Category</u> |
| Flammable solids | Not classified |
| <u>Health hazards</u> | <u>Category</u> |
| Acute toxicity – oral | Classification not possible |
| Acute toxicity – dermal | Classification not possible |
| Acute toxicity – inhalation (gas) | Not applicable |
| Acute toxicity – inhalation (vapor) | Classification not possible |
| Acute toxicity – inhalation (dust, mist) | Classification not possible |
| Skin corrosion/irritation | Category 2 |
| Serious eye damage/eye irritation | Category 2B |
| Respiratory sensitization | Classification not possible |
| Skin sensitization | Category 1 |
| Germ cell mutagenicity | Classification not possible |
| Carcinogenicity | Classification not possible |
| Toxic to reproduction | Classification not possible |
| Specific target organ toxicity (single exposure) | Category 3 |
| Specific target organ toxicity (repeated exposure) | Classification not possible |
| Respiratory tract irritation | Classification not possible |
| <u>Environmental hazards</u> | <u>Category</u> |
| Hazardous to the aquatic environment – acute | Category 2 |
| Hazardous to the aquatic environment – chronic | Category 2 |

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Trade name : SUPER-UV ROYAL GOLD BLUISH

GHS Label Elements

Symbols :



Signal word : Warning

Hazard statement : H315 Causes skin irritation
 : H320 Causes eye irritation
 : H317 May cause an allergic skin reaction.
 : H335 May cause respiratory irritation
 : H401 Toxic to aquatic life
 : H411 Toxic to aquatic life with long lasting effects

Precautionary Statements

General : Be sure to read Safety Data Sheet (SDS) in use.

Prevention : P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 : P264 Wash hands thoroughly after handling.
 : P271 Use only outdoors or in a well-ventilated area.
 : P272 Contaminated work clothing should not be allowed out of the workplace.
 : P273 Avoid release to the environment.
 : P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response : P302+352 If on skin : Wash with plenty of soap and water.
 : P304+340 IF INHALED : Remove person to fresh air and keep comfortable for breathing.
 : P305+351 IF IN EYES : Rinse cautiously with water for several minutes.
 : +338 Remove contact lenses, if present and easy to do. Continue rinsing.
 : P312 Call a POISON CENTER/doctor/...if you feel unwell.
 : P321 Specific treatment.

Storage : P332+P313 If skin irritation occurs : Get medical advice/attention.
 : P333+P313 If skin irritation or rash occurs : Get medical advice / attention.
 : P337+313 If eye irritation persists : Get medical advice/attention.
 : P362+364 Take off contaminated clothing and wash it before reuse.
 : P391 Collect spillage.

Disposal : P403+233 Store in a well-ventilated place. Keep container tightly closed.
 : P405 Store locked up.
 : P501 Dispose of contents/container by entrust to the industrial waste disposal contractors who obtain permission of the prefectural governors.

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Trade name : SUPER-UV ROYAL GOLD BLUISH

SECTION 3 : Composition/information on ingredients

Classification of Substance or Mixture : Mixture

Chemical name or General name : Offset Printing Ink

| Substance | CAS No. | Content |
|-------------------------|-------------|---------|
| Copper | 7440-50-8 | 25-35% |
| Zinc | 7440-66-6 | 10-20% |
| Pigment | Undisclosed | <1% |
| Photo-sensitive resin | Undisclosed | 20-30% |
| Photo-sensitive monomer | Registered | 10-20% |
| Photo initiator | Undisclosed | 5-10% |
| Additive | Registered | 1-5% |

SECTION 4 : First-aid measures

- If inhaled : Remove person to fresh air and keep comfortable for breathing.
: Get medical advice/attention if necessary.
- If on skin : Wash with plenty of soap and water.
: If skin irritation or rash occurs ; Get medical advice/attention.
- If in eye : Rinse cautiously with for several minutes. Get medical advice/attention.
: If eye irritation persists : get medical advice/attention.
- If swallowed : Do NOT induce vomiting. Immediately call a doctor.

SECTION 5 : Fire-fighting measures

- Suitable extinguishing agents : Powder, Foam, Carbon dioxide, Water, Dry sand, Misty agent.
- Unsuitable extinguishing agents : Straight stream
- Special hazards : Move containers to safe places immediately.

SECTION 6 : Accidental release measures

Personal precautions

Protective equipment and emergency procedures

- : Wear protective gloves/protective clothing/eye protection.
- : Ventilate well until completely-processed if indoor.
- : Evacuate people downwind.
- : Seal off the place which materials leaked out by loping.
- : Clear immediately nearby ignition sources.

Environmental precautions

- : Avoid release to the environment.

Methods and materials for contaminant and cleaning up

- : Wash away the contaminated place with plenty of water and dispersing agent after collecting spillage in an empty container.

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SECTION 7 : Handling and storage

Technical countermeasure : Conduct the facility measures in Section 8. Wear protective equipment.

Local exhaust/General ventilation : Seal the source or install general ventilation device if indoor.

Precaution for safe handling : Close a container each use. (For prevention of drying or ink film)

: Eliminate contaminant if attached on work clothing.

: Wash hands and rinse mouth thoroughly after handling.

: Burn/dispose a rag wiped out the product immediately.

Conditions for safe storage : If over designated, comply with the fire prevention ordinance.
: Store away from ignition sources.

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|--------|-------------------|-----------------------------|
| | Control parameter | ACGIH |
| Copper | | 1mg/m ³ (powder) |

| | |
|------------------------|---|
| Respiratory protection | : Use a mask in case mist or vapor is produced. |
| Protection of hands | : Protective gloves |
| Eye protection | : Protective eye protection |
| Skin protection | : Protective clothing, protective boots |

| | |
|-------------------------------------|--|
| Appearance | : Pasty |
| Smell | : Characteristic |
| Boiling point/Initial boiling point | : Not determined |
| Flash point | : Not determined |
| Specific Gravity | : Not determined |
| Solubility | : Insoluble in water, soluble in organic solvent |

| | Boiling point | Flash point | Ignition point | Density | Solubility in water | Explosion limit |
|--------|---------------|-------------|----------------|---------|---------------------|-----------------|
| Copper | 2566°C | | | 8.96 | Insoluble | |
| Zinc | 907°C | | | 7.13 | Insoluble | |

| | |
|----------------------------------|--|
| Chemical stability | : Stable under normal storage conditions, ordinary temperature and pressure. |
| Conditions to avoid | : Ultraviolet, heating |
| Hazardous decomposition products | : Generation of toxic gas like CO/NOX by combustion. |

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Trade name : SUPER-UV ROYAL GOLD BLUIISH

SECTION 11 : Toxicological information

Toxicological information as production : No toxicological information as production.

Toxicological information of components :

| | Acute toxicity (oral) | Acute toxicity (dermal) | Acute toxicity (gas) | Acute toxicity (vapor) |
|----------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Copper | Not Classified | Classification not possible | Classification not possible | Classification not possible |
| Zinc | Not Classified | Classification not possible | Not applicable | Classification not possible |
| Photo-Sensitive Resin | Classification not possible | Classification not possible | Classification not possible | Classification not possible |
| Photo-Sensitive Monomer | Classification not possible | Classification not possible | Classification not possible | Classification not possible |
| Photo Initiator | Classification not possible | Classification not possible | Classification not possible | Classification not possible |

| | Acute toxicity (dust, mist) | Skin corrosion /irritation | Serious eye damage/irritation | Respiratory sensitization |
|----------------------------|--------------------------------|--------------------------------|----------------------------------|--------------------------------|
| Copper | Classification not possible | Classification not possible | Classification not possible | Classification not possible |
| Zinc | Not Classified | Not Classified | Category 2B | Classification not possible |
| Photo-Sensitive Resin | Classification not possible | Category 2 | Category 2 | Classification not possible |
| Photo-Sensitive Monomer | Classification not possible | Classification not possible | Classification not possible | Classification not possible |
| Photo Initiator | Classification not possible | Category 2 | Category 2B | Classification not possible |

| | Skin sensitization | Germ cell mutagenicity | Carcinogenicity | Toxic to reproduction |
|----------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Copper | Category 1A | Classification not possible | Classification not possible | Classification not possible |
| Zinc | Not Classified | Classification not possible | Classification not possible | Classification not possible |
| Photo-Sensitive Resin | Classification not possible | Classification not possible | Classification not possible | Classification not possible |
| Photo-Sensitive Monomer | Classification not possible | Classification not possible | Classification not possible | Classification not possible |
| Photo Initiator | Category 1 | Classification not possible | Classification not possible | Classification not possible |

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Trade name : SUPER-UV ROYAL GOLD BLUISH

| | Specific target organ toxicity (single exposure) | Specific target organ toxicity (repeated exposure) | Aspiration hazard |
|-------------------------|---|--|-----------------------------|
| Copper | Category 1(Digestive organ) Category 3 (Respiratory tract irritation) | Classification not possible | Classification not possible |
| Zinc | Classification not possible | Classification not possible | Classification not possible |
| Photo-Sensitive Resin | Category 3 (Respiratory tract irritation) | Classification not possible | Classification not possible |
| Photo-Sensitive Monomer | Classification not possible | Classification not possible | Classification not possible |
| Photo Initiator | Classification not possible | Classification not possible | Classification not possible |

SECTION 12 : Ecological information

Ecological information as production :

| | Hazardous to the aquatic environment (acute) | Hazardous to the aquatic environment (long-term) |
|-------------------------|--|--|
| Copper | Classification not possible | Category 4 |
| Zinc | Category 1 | Category 1 |
| Photo-Sensitive Resin | Classification not possible | Classification not possible |
| Photo-Sensitive Monomer | Classification not possible | Classification not possible |
| Photo Initiator | Category 2 | Category 2 |

SECTION 13 : Disposal consideration

Entrust to waste disposers licensed from such prefectural governors or to local governments if they dispose.
Do not release the drainage cleansing container, equipment or devise on the ground or to water ditches directory.
Keep container tightly closed for contents not to outflow when toppling.

SECTION 14 : Transport information

•Japan domestic regulations

- UN number : N/A
- Land regulatory information : Comply with transportation specified by the Fire Defense Law, Industrial Safety and Health Law, or Poison Law.
- Maritime regulatory information : Comply with transportation specified by Ship Safety Act.
- Aviation regulatory information : Comply with transportation specified by Civil Aeronautics Act.

•Transport/Additional information : Not dangerous according to IMDG/IATA/ADR/AND.

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| Trade name : | SUPER-UV ROYAL GOLD BLUISH |
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| SECTION 15 : Regulatory information |
|-------------------------------------|

- Industrial Safety and Health Act :
- Fire Service Act ; Fire Prevention Ordinan: Specified flammable material (flammable solid type)
- Law concerning Pollutant Release and Transfer Register (PRTR Law)
- Waste Management and Public Cleansing Act
- Safety, health and environmental regulations/legislation specific for the substance or mixture.
: This product complies with Japanese regulations. Follow all regulations in your country.

| |
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| SECTION 16 : Other information |
|--------------------------------|

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| Skin sensitization | Category 1 |
| Germ cell mutagenicity | Classification not possible |
| Carcinogenicity | Classification not possible |
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