

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 H-UV ROYAL SILVER
 MSDS number : SHURS20160901
 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

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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) | Classification not possible |
| 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 3 |
| Hazardous to the aquatic environment – chronic | Category 3 |

SAFETY DATA SHEET

Revision : September 1, 2016

Trade name : SUPER H-UV ROYAL SILVER

GHS Label Elements

Symbols :



Signal word : Warning

Hazard statement : H315 Causes skin irritation
 : H320 Causes eye irritation
 : H317 May cause an allergic skin reaction.
 : H402 Harmful to aquatic life
 : H412 Harmful 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.
 : 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.
 : P305+351 IF IN EYES : Rinse cautiously with water for several minutes.
 : +338 Remove contact lenses, if present and easy to do. Continue rinsing.
 : P321 Specific treatment.
 : 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.
 Storage
 Disposal : P501 Dispose of contents/container by entrust to the industrial waste disposal contractors who obtain permission of the prefectural governors.

SECTION 3 : Composition/information on ingredients

Classification of Substance or Mixture : Mixture

Chemical name or General name : Offset Printing Ink

| Substance | CAS No. | Content |
|-------------------------|-------------|---------|
| Aluminum | 7429-90-5 | 5-15% |
| Monomer | Undisclosed | 5-15% |
| Photo-sensitive resin | Undisclosed | 25-35% |
| Photo-sensitive monomer | Registered | 30-40% |
| Photo initiator | Undisclosed | 5-15% |
| Additive | Registered | 1-5% |

SAFETY DATA SHEET

Revision : September 1, 2016

Trade name : SUPER H-UV ROYAL SILVER

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, Mist 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 lopping.
- : 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.

SECTION 7 : Handling and storage

Handling

- 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.

Storage

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

SAFETY DATA SHEET

Revision : September 1, 2016

Trade name : SUPER H-UV ROYAL SILVER

SECTION 8 : Exposure controls / personal protection

Control parameters of Compositional substances : Not set

| | Control parameter | ACGIH |
|----------|----------------------|------------------------------|
| Aluminum | 3.0mg/m ³ | 10mg/m ³ (powder) |

Equipment provision : Install ventilation device if generated mist or vapor.

Protective equipment

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

SECTION 9 : Physical and chemical properties

Information on basic physical and chemical properties

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

SECTION 10 : Stability and reactivity

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.

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) |
|----------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Aluminum | Classification not possible | 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 | Classification not possible | Classification not possible | Classification not possible | Classification not possible |

SAFETY DATA SHEET

Revision : September 1, 2016

Trade name : SUPER H-UV ROYAL SILVER

| | Acute toxicity (dust, mist) | Skin corrosion /irritation | Serious eye damage/irritation | Respiratory sensitization |
|----------------------------|--------------------------------|--------------------------------|----------------------------------|--------------------------------|
| Aluminum | Classification not possible | Classification not possible | Classification not possible | Classification not possible |
| Photo-Sensitive Resin | Classification not possible | Category 2 | 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 | Category 2 | Category 2B | Classification not possible |

| | Skin sensitization | Germ cell mutagenicity | Carcinogenicity | Toxic to reproduction |
|----------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Aluminum | Classification not possible | Classification not possible | Classification not possible | Classification not possible |
| Photo-Sensitive Resin | Category 1 | Classification not possible | Classification not possible | Classification not possible |
| Photo-Sensitive Monomer | Category 1 | Classification not possible | Classification not possible | Classification not possible |
| Photo Initiator | Classification not possible | Classification not possible | Classification not possible | Classification not possible |

| | Specific target organ toxicity (single exposure) | Specific target organ toxicity (repeated exposure) | Aspiration hazard |
|----------------------------|---|---|--------------------------------|
| Aluminum | Classification not possible | Category 2 (Nervous system) | Classification not possible |
| Photo-Sensitive Resin | Classification not possible | 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) |
|----------------------------|---|---|
| Aluminum | Classification not possible | Category 4 |
| Photo-Sensitive Resin | Classification not possible | Classification not possible |
| Photo-Sensitive Monomer | Classification not possible | Classification not possible |
| Photo Initiator | Category 2 | Category 2 |

SAFETY DATA SHEET

Revision : September 1, 2016

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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.**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.

SECTION 16 : Other information

Descriptions in SAFETY DATA SHEET (SDS) are prepared based on materials, data or information currently available. The contents of SDS may change without notice according to revising laws and regulations and/or new knowledge. SDS is not safety warranty.

If used this product, take appropriate measures to actual condition on users' own responsibilities.