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 GOLD BLUISH

MSDS number

: SHURGB20160901

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> Flammable solids	<u>Category</u> Not classified
Health hazards	Category
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
Environmental hazards	Category
Hazardous to the aquatic environment – acute	Category 2
Hazardous to the aquatic environment - chronic	Category 2

Revision: September 1, 2016

Trade name:

### SUPER H-UV ROYAL GOLD BLUISH

#### **GHS Label Elements**

Symbols:





Signal word

: Warning

Hazard statement

: H315 Causes skin irritation

Causes eye irritation : H320

May cause an allergic skin reaction. : H317 : 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

Avoid breathing dust/fume/gas/mist/vapours/spray. : P261

Wash hands thoroughly after handling. : P264

Use only outdoors or in a well-ventilated area. : P271

Contaminated work clothing should not be allowed out of the workplace. : P272

: P273 Avoid release to the environment.

Wear protective gloves/protective clothing/eye protection/face protection. : P280

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.

IF IN EYES: Rinse cautiously with water for several minutes. : P305+351

+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.

If skin irritation occurs: Get medical advice/attention. : P332+P313

P333+P313

If skin irritation or rash occurs: Get medical advice / attention.

: P337+313

: P501

If eye irritation persists: Get medical advice/attention.

: P362+364 Take off contaminated clothing and wash it before reuse.

P391 Collect spillage.

Storage

Store in a well-ventilated place. Keep container tightly closed. : P403+233

: P405 Store locked up.

Disposal

Dispose of contents/container by entrust to the industrial waste disposal

contractors who obtain permission of the prefectural governors.

Revision: September 1, 2016

Trade name:

SUPER H-UV ROYAL GOLD BLUISH

SECTION 3:

Composition/information on ingredients

Classification of Substance or Mixture

: Mixture

Chemical name or General name

: Offset Printing Ink

CAS No.	Content	
7440-50-8	25-35%	
7440-66-6	10-20%	
Undisclosed	<1%	
Undisclosed	20-30%	
Registered	10-20%	
Undisclosed	5-10%	
Registered	1-5%	
	7440-50-8 7440-66-6 Undisclosed Undisclosed Registered Undisclosed	

SECTION 4		First-aid measures
ISECTION 4	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, Form, 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.

Revision: September 1, 2016

Trade name: SUPER H-UV ROYAL GOLD BLUISH

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.

SECTION 8 : Exposure controls / personal protection

Control parameters of Compositional substances : Not set

	Control parameter	ACGIH
Copper		1mg/m³ (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

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

### 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.

Revision: September 1, 2016

Trade name: SUPER H-UV ROYAL GOLD BLUISH

SECTION 11: Toxicological information

Toxicological information as production: No toxicological information as production.

Toxicological information of components:

TOXICOlogical Informatio	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	Skin corrosion	Serious eye	Respiratory
	(dust, mist)	/irritation	damage/irritation	sensitization
0	Classification	Classification	Classification	Classification
Copper	not possible	not possible	not possible	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	Classification	Classification	Classification	Classification
Monomer	not possible	not possible	not possible	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 H-UV	ROYAL	GOLD	BLUISH

	Specific target organ	Specific target organ toxicity	
	toxicity (single exposure)	(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:

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.

Revision: September 1, 2016

Trade name:

SUPER H-UV ROYAL GOLD BLUISH

## 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.

Revision: September 1, 2016

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## SECTION 1: Identification of the substance/preparation and of the company/undertaking

Product details

Trade name

: SUPER H-UV ROYAL GOLD REDDISH

MSDS number

: SHURGR20160901

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

Physical hazards Flammable solids	<u>Category</u> Not classified
Health hazards	Category
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
Environmental hazards	Category
Hazardous to the aquatic environment – acute	Category 2
Hazardous to the aquatic environment – chronic	Category 2

Revision: September 1, 2016

Trade name:

### SUPER H-UV ROYAL GOLD REDDISH

#### **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

Toxic to aquatic life with long lasting effects : H411

Precautionary Statements

General

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

Avoid breathing dust/fume/gas/mist/vapours/spray. : P261 Prevention

> Wash hands thoroughly after handling. : P264

Use only outdoors or in a well-ventilated area. : P271

Contaminated work clothing should not be allowed out of the workplace. : P272

Avoid release to the environment. : P273

Wear protective gloves/protective clothing/eye protection/face protection. : P280

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.

IF IN EYES: Rinse cautiously with water for several minutes. : P305+351

Remove contact lenses, if present and easy to do. Continue rinsing. +338

: P312 Call a POISON CENTER/doctor/...if you feel unwell.

: P321 Specific treatment.

If skin irritation occurs: Get medical advice/attention. : P332+P313

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.

Storage

: P403+233

Store in a well-ventilated place. Keep container tightly closed.

: P405 Store locked up.

Disposal

: P501

Dispose of contents/container by entrust to the industrial waste disposal

contractors who obtain permission of the prefectural governors.

Revision: September 1, 2016

Trade name: SUPER H-UV ROYAL GOLD REDDISH

SECTION 3: Composition/information on ingredients

Classification of Substance or Mixture : Mixture

Chemical name or General name : Offset Printing Ink

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Substance	CAS No.	Content
Copper	7440-50-8	40-50%
Zinc	7440-66-6	5-15%
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, Form, 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.

Revision: September 1, 2016

Trade name:

SUPER H-UV ROYAL GOLD REDDISH

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.

SECTION 8 : Exposure controls / personal protection

Control parameters of Compositional substances

: Not set

	Control parameter	ACGIH
Copper		1mg/m³ (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

: Pastv

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

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

### 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.

Revision: September 1, 2016

Trade name :

SUPER H-UV ROYAL GOLD REDDISH

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	Skin corrosion	Serious eye	Respiratory
	(dust, mist)	/irritation	damage/irritation	sensitization
	Classification	Classification	Classification	Classification
Copper	not possible	not possible	not possible	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	Classification	Classification	Classification	Classification
Monomer	not possible	not possible	not possible	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 H-UV	ROYAL	GOLD	REDDISH

	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

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. : Comply with transportation specified by Civil Aeronautics Act.

Aviation regulatory information

: Not dangerous according to IMDG/IATA/ADR/AND.

Transport/Additional information

Revision: September 1, 2016

Trade name:

SUPER H-UV ROYAL GOLD REDDISH

## 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.