

21743-1019

Issue Date: 2023-03-22

Metallic Gel Ink

## Safety Data Sheet

## Metallic Gel Ink

**Section 1 Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier:**

Identification on the label/Trade name: Metallic Gel Ink Z-6000U (black, silver, purple, light blue, dark blue, gold, red, pink, orange, green)

Additional identification: N/A

Identification of the product: See Section 3

Index Number: N/A

REACH registration No.: See Section 3

**1.2 Relevant identified uses of the substance and uses advised against:****1.2.1 Identified uses:**

Metallic Gel Inks

**1.2.2 Uses advised against:**

Not available.

**1.3 Details of the supplier of the safety data sheet:**

Supplier (Only representative):

Supplier (Manufacturer):

Address:

Contact person (E-mail):

Telephone:

**1.4 Emergency telephone Number:**

Emergency phone#

**Section 2 Hazards Identification****2.1 Classification of the substance/mixture:**

Classification according to regulation (EC) 1272/2008: The product is not classified according to CLP Regulation.

**Classification system:**

The classification is according to the latest edition of Regulation 1272/2008, and extended by company and literature data

Issue Date: 2023-03-22

Metallic Gel Ink

**2.2 label elements:****Labeling according to Regulation (EC) No 1272/2008:** The product is not labelled according to CLP

Regulation

**Hazard Pictograms:** Not applicable**Signal Word(S):** Not applicable**Hazard Statement:** Not applicable**Precautionary statement:** Not applicable**2.3 Other hazards:****Results of PBT and wPyB assessment****PBT:** Not applicable**vPvB:** Not applicable**Section 3 Composition/information on ingredients****Substance/Mixture:** Mixture**Ingredient(s):**

Chemical Name	Registration No.	CAS No.	EC No.	Concentration	CLP classification
Water	N/A	7732-18-5	231-791-2	complementary	None
PPG	N/A	57-55-6	200-338-0	32.0	None
Triethanolamine	N/A	102-71-6	203-049-8	1.2	None
Oleic Acid	N/A	112-80-1	204-007-1	0.8	None
Dibromocynoacetamide	N/A	10222-01-2	233-539-7	0.09	None
Aluminum	N/A	7429-90-5	640-421-2	2.0	None
Pigment					
Z-6010U	N/A	5468-75-7	226-789-3	2.0	None
		6505-28-8	229-388-1	1.0	None
Z6020U	N/A	7429-90-5	231-072-3	2.7	None
Z-6030U	N/A	147-14-8	205-685-1	2.0	None
Z-6040E	N/A	8004-92-0	616-849-0	1.4	None
		18472-87-2	242-355-6	0.6	None
Z-6050E	N/A	18472-87-2	242-355-6	0.5	None
		3844-45-9	223-339-8	1.0	None

Issue Date: 2023-03-22

Metallic Gel Ink

Z-6060U	N/A	1328-53-6	215-524-7	3.0	None
Z-6070U	N/A	1333-86-4	215-609-9	1.0	None
Z-6080U	N/A	7023-61-2	230-303-5	2.0	None
		4224-06-0	-	1.0	None
Z-6090U	N/A	980-26-7	213-561-3	3.0	None
Z-6100U	N/A	7023-61-2	230-303-5	0.5	None
		147-14-8	205-685-1	0.5	None
		4424-06-0	224-597-4	0.5	None
		1328-53-6	215-524-7	0.5	None
Z-6110U	N/A	147-14-8	147-14-8	1.5	None
		1328-53-6	215-524-7	1.5	None
Z-6120E	N/A	6358-69-6	228-783-6	1.5	None

**Section 4 First aid measures****4.1 Description of first aid measures:**

In all cases of doubt, or when symptoms persist, seek medical attention.

**4.1.1 In case of inhalation:**

If breathed in, remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical attention.

**4.1.2 In case of skin contact:**

Wash thoroughly with plenty of warm water.

**4.1.3 In case of eyes contact:**

Flush with warm water for at least 15 minutes. If irritation persists get medical attention.

**4.1.4 In case of ingestion:**

If swallowed will feel vomiting immediately. Please call physician.

**4.2 Most important symptoms and effects, both acute and delayed:**

The product is not classified as harmful to human health effect.

**4.3 Indication of any immediate medical attention and special treatment needed:**

Symptomatic treatment.

**Section 5 Fire-Fighting measures****5.1 Extinguishing media:**

Issue Date: 2023-03-22

Metallic Gel Ink

**Suitable extinguishing media:** This product is non-flammable. Use extinguishing agents appropriate for surrounding materials.

**Unsuitable extinguishing media:** Not available.

## 5.2 Special hazards arising from the substance or mixture

Carbon monoxide, carbon dioxide

## 5.3 Special fire fighting methods and special protective actions for fire-fighters:

Wear self-contained breathing apparatus for firefighting if necessary.

## Section 6 Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures:

**6.1.1 For non-emergency personnel:** Provide adequate ventilation.

**6.1.2 For emergency responders:** Avoid raising dust. Avoid skin and eye contact. Refer to section 8 of SDS for personal protection details.

### 6.2 Environmental Precautions:

Avoid disposing into drainage/sewer system or directly into the aquatic environment.

### 6.3 Methods for Containment and Cleaning up:

Sweep up with spade, place into a dry, clean, lidded container for disposal. Avoid raising dust. Ventilated area and wash spill site after material pick up is complete.

### 6.4 Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

### 6.5 Additional information:

No special treatment.

## Section 7 Handling and storage

### 7.1 Precautions for safe handling:

#### 7.1.1 Protective measures:

Ensure good ventilation/exhaustion at the workplace. DO not get in eyes, on skin and on clothing. DO not breathe dust. Keep away from ignition sources, heat and flame.

#### 7.1.2 Advice on general occupational hygiene:

Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

Issue Date: 2023-03-22

Metallic Gel Ink

**7.2 Conditions for safe storage, including any incompatibilities:**

Store in a cool, well-ventilated place.

Keep away from ignition sources, heat and flame.

Store in a tightly closed container.

Incompatibilities: oxidizing agents and foods.

**7.3 Specific end use(s):**

Metallic Gel Ink

**Section 8 Exposure Controls/Personal Protection****8.1 Control parameters:**

8.1.1 Occupational exposure limits: N/A

8.1.2 Additional exposure limits under the conditions of use: N/A

8.1.3 DNEL/DMEL and PNEC-Values: N/A

**8.2 Exposure controls:**

8.2.1 Appropriate engineering controls: Use adequate ventilation to keep airborne concentrations low. Provide safety shower and cleaning eyes equipment.

**8.2.2 Individual protection measures, such as personal protective equipment:**

Eye/face protection: Safety glasses.

Hand protection: Safety gloves.

Body protection: Wear appropriate protective clothing.

Respiratory protection: Wear appropriate protective mask.

Thermal hazards: Wear suitable protective clothing to prevent heat.

8.2.3 Environmental exposure controls: Avoid discharge into the environment. Dispose of rinse water in accordance with local and national regulations

**Section 9 Physical and chemical properties****9.1 Information on basic physical and chemical properties:**

Appearance: Liquid Gel

Colour: Various

Odour: Odorless

Odour threshold: N/A

pH: 8.0 ~ 9.5

Issue Date: 2023-03-22

Metallic Gel Ink

<b>Melting point/range (°C):</b>	N/A
<b>Boiling point/range (°C):</b>	>100
<b>Flash point (°C):</b>	N/A
<b>Evaporation rate:</b>	N/A
<b>Flammability limit - lower (%):</b>	N/A
<b>Flammability (solid, gas):</b>	N/A
<b>Ignition temperature (°C):</b>	N/A
<b>Upper/lower flammability/explosive limits:</b>	N/A
<b>Vapour pressure (20°C):</b>	N/A
<b>Vapour density:</b>	N/A
<b>Relative Density:</b>	1.02
<b>Bulk density (kg/m):</b>	~ 1.02
<b>Water solubility (g/l):</b>	Miscible
<b>n-Octanol/Water (log Po/w):</b>	N/A
<b>Auto-ignition temperature:</b>	N/A
<b>Decomposition temperature:</b>	N/A
<b>Viscosity, dynamic (mPa.s):</b>	2000 ~ 5000

**9.2. Other information:**

<b>Fat solubility (solvent– oil to be specified) etc:</b>	N/A
<b>Surface tension:</b>	32.0 ~ 35.0
<b>Dissociation constant in water (pKa):</b>	N/A
<b>Oxidation-reduction Potential:</b>	N/A
<b>Density:</b>	1.02

**Section 10 Stability and reactivity**

<b>10.1 Reactivity:</b>	The substance is stable under normal storage and handling conditions.
<b>10.2 Chemical stability:</b>	Stable at room temperature in closed containers under normal storage and handling conditions.
<b>10.3 Possibility of hazardous reactions:</b>	No dangerous reactions known.
<b>10.4 Conditions to avoid:</b>	Incompatible materials.
<b>10.5 Incompatible materials:</b>	Strong oxidizing agents.

Issue Date: 2023-03-22

Metallic Gel Ink

**10.6 Hazardous decomposition products:** Carbon monoxide, carbon dioxide.**Section 11 Toxicological information****11.1 Toxicokinetic, metabolism and distribution:****Non-human toxicological data:** Not available**11.2 Information on toxicological effects:**

<b>Acute toxicity:</b>	N/A
<b>Skin corrosion/irritation:</b>	Not irritating
<b>Serious eye damage/irritation:</b>	Not Irritating
<b>Respiratory or skin sensitization:</b>	Not sensitizing
<b>Germ cell mutagenicity:</b>	Negative
<b>Carcinogenicity:</b>	Not carcinogenic
<b>STOT- single exposure:</b>	Not classified
<b>STOT-repeated exposure:</b>	Not classified

**Section 12 Ecological information**

<b>Toxicity:</b>	N/A
<b>Persistence and degradability:</b>	N/A
<b>Bioaccumulative potential:</b>	N/A
<b>Mobility in soil:</b>	N/A
<b>Results of PBT&amp;vPvB assessment:</b>	N/A
<b>Other adverse effects:</b>	N/A

**Section 13 Disposal considerations****13.1 Waste treatment methods:**

Waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state and local environmental regulations.

**13.2 Product / Packaging disposal:**

If empty container retains product residues, all label precautions must be observed. Return for reuse or dispose according to national or local regulations.

Issue Date: 2023-03-22

Metallic Gel Ink

**Section 14 Transport information**

	Land transport(ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number	Not Regulated	Not Regulated	Not Regulated
UN Proper shipping name	Not Regulated	Not Regulated	Not Regulated
Transport hazard Class	Not Regulated	Not Regulated	Not Regulated
Packaging group	Not Regulated	Not Regulated	Not Regulated
Environmental hazards	No	No	No
Special precautions for user	See Section 2.2	See Section 2.2	See Section 2.2
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not Regulated	Not Regulated	Not Regulated

**Section 15 Regulation information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture;****Relevant information regarding authorization:**

Not applicable

**Relevant information regarding restriction:**

Not applicable

**Other EU regulations:**

Employment restrictions concerning young person must be observed. For use only by technically qualified individuals.

**Other National regulations:**

Not applicable

**Chemical Safety Assessment has been carried out?**

YES

NO X

**Section 16 Other information****16.1 Indication of changes:**

Version 1.0

Amended by EU No 453/2010

**16.2 Relevant R- phrases (number and full text):**

Not applicable.

**16.3 Training instructions:**

Not applicable.

**16.4 Further information:**

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

**16.5 Notice to reader:**



Issue Date: 2023-03-22

Metallic Gel Ink

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.