

Material 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 V-60000
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:

1.4 Emergency telephone Number:

Section 2 Hazards Identification

2.1 Classification of the substance/mixture:

2.1.1 Classification:

The mixture is classified as following according to REGULATION (EC) No 1272/2008:

REGULATION (EC) No 1272/2008

Hazard classes/Hazard categories

Hazard statement

N/A

N/A

For full text of H- phrases: see section 2.2.

2.2 label elements:**Hazard Pictograms:** No hazard pictogram is used.**Signal Word(S):** No signal word is used.**Hazard Statement:** Not applicable.**Precautionary statement:** Not applicable.**2.3 Other hazards:**

Not available.

Section 3 Composition/information on ingredients**Substance/Mixture:** Mixture**Ingredient(s):**

Chemical Name	Registration No.	CAS No.	EC No.	Concentration
Water	N/A	7732-18-5	231-791-2	complementary
PPG	N/A	57-55-6	-	32.0
Triethanolamine	N/A	102-71-6	-	1.2
Oleic Acid	N/A	112-80-1	-	0.8
Dibromocycanoacetamide	N/A	10222-01-2	-	0.09
Aluminum	N/A	7429-90-5	-	2.0
Pigment				
V-60100	N/A	5468-75-7	-	2.25
		6505-28-8	-	0.25
V-60200	N/A	7429-90-5	-	2.5
V-60300	N/A	147-14-8	-	2.5
V-60400	N/A	7023-61-2	-	2.5
V-60500	N/A	1325-82-2	-	2.5
V-60600	N/A	1328-53-6	-	2.5
V-60700	N/A	1333-86-4	-	1.0
V-60800	N/A	6505-28-8	-	2.0
		5567-15-7	-	0.5
V-60900	N/A	75627-12-2	-	2.5

V-609 E	N/A	18472-87-2	-	1.8
V-61000	N/A	5280-68-2	-	1.8
		1333-86-4	-	0.2
		5567-15-7	-	0.5
V-61100	N/A	147-14-8	-	2.0
		1328-53-6	-	1.5
V-61400	N/A	6358-69-6	-	1.5

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:

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.

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

Melting point/range (°C): N/A

Boiling point/range (°C): >100

Flash point (°C): N/A

Evaporation rate: N/A

Flammability limit - lower (%): N/A

Flammability (solid, gas): N/A

Ignition temperature (°C):	N/A
Upper/lower flammability/explosive limits:	N/A
Vapour pressure (20°C):	N/A
Vapour density:	N/A
Relative Density:	1.02
Bulk density (kg/m):	~ 1.02
Water solubility (g/l):	Miscible
n-Octanol/Water (log Po/w):	N/A
Auto-ignition temperature:	N/A
Decomposition temperature:	N/A
Viscosity, dynamic (mPa.s):	2000 ~ 5000

9.2. Other information:

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

Section 10 Stability and reactivity

- 10.1 Reactivity:** The substance is stable under normal storage and handling conditions.
- 10.2 Chemical stability:** Stable at room temperature in closed containers under normal storage and handling conditions.
- 10.3 Possibility of hazardous reactions:** No dangerous reactions known.
- 10.4 Conditions to avoid:** Incompatible materials.
- 10.5 Incompatible materials:** Strong oxidizing agents.
- 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
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11.2 Information on toxicological effects:

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

Section 12 Ecological information

Toxicity:	N/A
Persistence and degradability:	N/A
Bioaccumulative potential:	N/A
Mobility in soil:	N/A
Results of PBT&vPvB assessment:	N/A
Other adverse effects:	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.

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

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Metallic Gel Ink

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:

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.