

SAFETY DATA SHEET**HYDRO METALLIC SILVER**

Version Number 1.0
Revision Date 04/22/2024

Page 1 of 12
Print Date 10/30/2024

SAFETY DATA SHEET

HYDRO METALLIC SILVER

Section 1. Identification

GHS product identifier : HYDRO METALLIC SILVER
Chemical name : Mixture
CAS number : Mixture
Other means of identification : ENORME- HMS
Product type : Paste

Relevant identified uses of the substance or mixture

Company name : D3 Industrial Products INC.

Address : 11968 Monarch st, Garden Grove, 92841
California, USA

Emergency Phone : North America: 1-800-255-3924
International: + 1-813-248-0585

E-mail : info@enormeink.com

Section 2. Hazards identification

This mixture has not been evaluated as a whole. Information provided on the health effects of this product is based on individual components. All ingredients are bound and the potential for hazardous exposure as shipped is minimal. However, some vapors may be released upon heating and the end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure. After handling, always wash hands thoroughly with soap and water.

OSHA/HCS status : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture : : The product is not classified as harmful.

GHS label elements

Signal word : No signal word.
Hazard statements : No known significant effects or critical hazards.

SAFETY DATA SHEET**HYDRO METALLIC SILVER**

Version Number 1.0

Revision Date 04/22/2024

Page 2 of 12

Print Date 10/30/2024

Precautionary statements

Prevention : Not applicable.
Response : Not applicable.
Storage : Not applicable.
Disposal : Not applicable.
Supplemental label elements : None known.
Hazards not otherwise classified : None known.
Not available.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Chemical name : Mixture
Other means of identification : ENORME- HMS

CAS number/other identifiers

Ingredient name	CAS No	Concentration
Water	7732-18-5	21-47%
Polymer dispersion, special mix (water based) (*)	9009-54-5	35-55%
Ethylene glycol	107-21-1	1-2%
Mica Pigment	12001-26-2	10-20%
Aluminum Powder	7429-90-5	3-6%

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

SAFETY DATA SHEET**HYDRO METALLIC SILVER**

Version Number 1.0
Revision Date 04/22/2024

Page 3 of 12
Print Date 10/30/2024

Section 4. First aid measures**Description of necessary first aid measures**

- | | | |
|---------------------|---|--|
| Eye contact | : | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs. |
| Inhalation | : | Remove victims to fresh air and keep at rest in a comfortable position for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
| Skin contact | : | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. |
| Ingestion | : | Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |

Most important symptoms/effects, acute and delayed**Potential acute health effects**

- | | | |
|---------------------|---|---|
| Eye contact | : | No known significant effects or critical hazards. |
| Inhalation | : | No known significant effects or critical hazards. |
| Skin contact | : | No known significant effects or critical hazards. |
| Ingestion | : | No known significant effects or critical hazards. |

Over-exposure signs/symptoms

- | | | |
|---------------------|---|-------------------|
| Eye contact | : | No specific data. |
| Inhalation | : | No specific data. |
| Skin contact | : | No specific data. |
| Ingestion | : | No specific data. |

Indication of immediate medical attention and special treatment needed, if necessary

- | | | |
|-----------------------------------|---|---|
| Notes to physician | : | In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
| Specific treatments | : | No specific treatment. |
| Protection of first-aiders | : | No action shall be taken involving any personal risk or without suitable training. |

SAFETY DATA SHEET**HYDRO METALLIC SILVER**

Version Number 1.0
Revision Date 04/22/2024

Page 4 of 12
Print Date 10/30/2024

See toxicological information (Section 11)

Section 5. Fire-fighting measures**Extinguishing media**

- Suitable extinguishing media** : In case of fire, use water spray (fog), foam, dry chemical or CO₂.
Unsuitable extinguishing media : None known.

- Specific hazards arising from the chemical** : No specific fire or explosion hazard.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides
halogenated compounds

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures**Personal precautions, protective equipment and emergency procedures**

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

SAFETY DATA SHEET**HYDRO METALLIC SILVER**

Version Number 1.0
Revision Date 04/22/2024

Page 5 of 12
Print Date 10/30/2024

- Small spill** : Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage**Precautions for safe handling**

- Protective measures** : Put on appropriate personal protective equipment (see Section 8).
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also, Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep the container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection**Control parameters****Occupational exposure limits**

Ingredient name	Exposure limits
Ethylene glycol	OSHA PEL (8 hours): 20 ppm 52 mg/m ³ ; (15 min.): 40 ppm 104 mg/m ³
Mica	OSHA PEL (8 hours): 20 mppcf (respirable) CAL/OSHA PEL (8 hours): 3 mg/m ³ (respirable dust)

SAFETY DATA SHEET

HYDRO METALLIC SILVER

Version Number 1.0

Revision Date 04/22/2024

Page 6 of 12

Print Date 10/30/2024

	ACGIH TLV TWA 3 mg/m ³ (respirable particulate matter) [1962]
Aluminum	OSHA PEL (8 hours): 15 mg/m ³ (total dust), 5 mg/m ³ (respirable fraction) CAL/OSHA PEL (8 hours): 10 mg/m ³ (total dust), 5 mg/m ³ (respirable fraction)

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

SAFETY DATA SHEET

HYDRO METALLIC SILVER

Version Number 1.0
Revision Date 04/22/2024

Page 7 of 12
Print Date 10/30/2024

Section 9. Physical and chemical properties**Appearance**

Physical state	:	Solid [Paste.]
Color	:	Metallic Silver
Odor	:	Characteristic
Odor threshold	:	Not available.
pH	:	8.0 – 8.5
Melting point	:	Not available.
Boiling point	:	212°F (water)
Flash point	:	Not applicable.
Burning time	:	Not available.
Burning rate	:	Not available.
Evaporation rate	:	Not available.
Flammability (solid, gas)	:	Not available.
Lower and upper explosive (flammable) limits	:	Lower: Not applicable. Upper: Not applicable.
Vapor pressure	:	Not available.
Vapor density	:	Not applicable.
Relative density	:	Not available.
Solubility	:	Not available.
Solubility in water	:	Soluble in water.
Partition coefficient: n-octanol/water	:	Not applicable.
Auto-ignition temperature	:	Not applicable.
Decomposition temperature	:	Not available.
SADT	:	Not available.
Viscosity	:	Dynamic: Not available. Kinematic: Not applicable.

Section 10. Stability and reactivity

Reactivity	:	No specific test data related to reactivity are available for this product or its ingredients.
------------	---	--

SAFETY DATA SHEET**HYDRO METALLIC SILVER**

Version Number 1.0
Revision Date 04/22/2024

Page 8 of 12
Print Date 10/30/2024

Chemical stability	:	Stable under recommended storage and handling conditions (see Section 7).
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	:	None.
Incompatible materials	:	None.
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information**Information on toxicological effects**

Acute toxicity: LD50 > 2.000 mg/kg (oral, rat)

Ethylene glycol:

LC50:18.500 mg/l (96 h, Oncorhynchus mykiss (rainbow trout))

LC50 > 10.000 mg/l (48 h, Leuciscus idus (gold Orpheus)- NOEC

Pimephales promelas (Carp puppy) - 32.000 mg/l - 7 d NOEC

Pimephales promelas (Carp puppy) - 39.140 mg/l - 96 h

Toxicity to Daphnia and other aquatic invertebrates

EC50:74.000 mg/l (24 h) - Daphnia magna (sweet bay) - NOEC - Daphnia (water flea) - 24.000 mg/l - 48 h

LC50 :41.000 mg/l (48 h)- Daphnia magna (sweet bay)

Other Toxicology Information

Inhalation	:	May cause irritation and coughing
Contact with Skin	:	May cause irritation and cracking of the skin at long term effect
Contact with Eyes	:	May cause irritation therefore use suitable protective clothing, gloves, goggles, mask
Ingestion	:	In case of ingestion may cause harmful.

Section 12. Ecological information

Ecotoxicity: Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheet

Toxicity

Acute toxicity - fish

: LC50>125 mg/l (96 hours, fish) OECD Test No:203

Acute toxicity - aquatic invertebrates: EC50> 1000 mg/l (48 hours, Daphnia) DIN 3842 Part L8

Acute toxicity - aquatic plants

Persistence and Degradability:

Persistence and degradability: product is biodegradable >70%, 28 OECD 303 A

Bio accumulative potential: This product doesn't make bio accumulative

Mobility in Soil: Soluble in Water. This product can spread in the aquatic media.

SAFETY DATA SHEET**HYDRO METALLIC SILVER**

Version Number 1.0

Revision Date 04/22/2024

Page 9 of 12

Print Date 10/30/2024

PBT and vPvB evaluation results:

This product doesn't contain material which as PBT or vPvB

Other negative effects: N/A**Section 13. Disposal considerations****Disposal methods**

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

United States - RCRA Acute hazardous waste "P" List: Not listed**United States - RCRA Toxic hazardous waste "U" List:** Not listed**Section 14. Transport information**U.S.DOT 49CFR
Ground/Air/Water

: Not regulated for transportation.

International Air
ICAO/IATA

: Not classified as dangerous goods under transport regulations.

International Water
IMO/IMDG

: Not classified as dangerous goods under transport regulations.

Section 15. Regulatory information**U.S. Federal regulations**

: **United States - TSCA 12(b) - Chemical export notification:** None of the components are listed.

SAFETY DATA SHEET

HYDRO METALLIC SILVER

Version Number 1.0

Revision Date 04/22/2024

Page 10 of 12

Print Date 10/30/2024

United States - TSCA 4(a) - Final Test Rules: Not listed
 United States - TSCA 4(a) - ITC Priority list: Not listed
 United States - TSCA 4(a) - Proposed test rules: Not listed
 United States - TSCA 4(f) - Priority risk review: Not listed
 United States - TSCA 5(a)2 - Final significant new use rules: Not listed
 United States - TSCA 5(a)2 - Proposed significant new use rules: Not listed
 United States - TSCA 5(e) - Substances consent order: Not listed
 United States - TSCA 6 - Final risk management: Not listed
 United States - TSCA 6 - Proposed risk management: Not listed
 United States - TSCA 8(a) - Chemical risk rules: Not listed
 United States - TSCA 8(a) - Dioxin/Furane precursor: Not listed
 United States - TSCA 8(a) - Chemical Data Reporting (CDR): Not determined
 United States - TSCA 8(a) - Preliminary assessment report (PAIR): Listed

United States - TSCA 8(c) - Significant adverse reaction (SAR): Not listed
 United States - TSCA 8(d) - Health and safety studies: Not listed
 United States - EPA Clean water act (CWA) section 307 - Priority pollutants: Listed

United States - EPA Clean water act (CWA) section 311 - Hazardous substances: Listed
 United States - EPA Clean air act (CAA) section 112 - Accidental release prevention - Flammable substances: Not listed
 United States - EPA Clean air act (CAA) section 112 - Accidental release prevention - Toxic substances: Not listed
 United States - Department of commerce - Precursor chemical: Not listed

Clean Air Act Section 112(b)	:	Not listed
Hazardous Air Pollutants (HAPs)		
Clean Air Act Section 602 Class I Substances	:	Not listed
Clean Air Act Section 602 Class II Substances	:	Not listed
DEA List I Chemicals (Precursor Chemicals)	:	Not listed
DEA List II Chemicals (Essential Chemicals)	:	Not listed

US. EPA CERCLA Hazardous Substances (40 CFR 302)

SAFETY DATA SHEET

HYDRO METALLIC SILVER

Version Number 1.0

Revision Date 04/22/2024

Page 11 of 12

Print Date 10/30/2024

not applicable

SARA 311/312**Classification** : Not applicable.**Composition/information on ingredients**

No products were found.

Name	%	Classification
Aluminum	3-6%	CARCINOGENICITY - TLV-A4

Not applicable.

State regulations**California Prop. 65**

None

United States inventory (TSCA 8b) : Not determined.**Canada inventory** : Not determined.**International regulations****Inventory list**

Australia	:	Not determined.
Canada	:	Not determined.
China	:	Not determined.
Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	Not determined.
Viet Nam	:	Not determined.

Section 16. Other information**Hazardous Material Information System (U.S.A.)**

SAFETY DATA SHEET

HYDRO METALLIC SILVER

Version Number 1.0
Revision Date 04/22/2024

Page 12 of 12
Print Date 10/30/2024

Health	/	1
Flammability		1
Physical hazards		0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

History

Date of printing : 10/30/2024
Date of issue/Date of revision : 04/22/2024
Date of previous issue : 00/00/0000
Version : 1.0

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of

Chemicals

IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

References : Not available.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. Particularly this information may not be valid for such material used in conjunction with any other materials or in any process, unless specified in the text.