Safety Data Sheet

SECTION 1: IDENTIFICATION

SDS Number: UVMS-2002, version 5/4/2018

(a) Product identifier
Gans Item ID: UVMS-2002, UVV877P, UV12369

Gans Description: UV Silver Paste, U/P T17-18 35% Silver Paste

(b) Other means of identification
General description: UV-Curable Lithographic Printing Ink

(c) Recommended use
Product Use: Industrial use only
Restrictions on use: Not for residential use.

(d) Supplier’s details
Manufacturer: Gans Ink and Supply Co, Inc.
Address: 1441 Boyd Street
Los Angeles, CA 90033
Contact Person: Marco Ramos
Telephone: 323-264-2200 x139
Email: MSDS@gansink.com

(e) Emergency telephone number:
Available only during business hours
(323) 264-2200; Monday- Friday 7:00 A.M. – 9:00 P.M.
24 Hours Response: Los Angeles County Fire Department / HazMat. Department

SECTION 2: HAZARD(S) IDENTIFICATION

Physical hazards: Not classified as hazardous
Health hazards: Not classified as hazardous

(b) Label elements
Signal Word: NA
Hazard Statements: NA
Precautionary Statements: NA
Hazard Pictograms: NA
(c) Hazards not otherwise classified: None known

(d) Ingredients of unknown acute toxicity: NA

SECTION 3: COMPOSITION/ INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS # (TS = trade secret)</th>
<th>Conc. min. (wt. %)</th>
<th>Conc. max. (wt. %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>aluminum powder (stabilized)</td>
<td>7429-90-5</td>
<td>60.0</td>
<td>80.0</td>
</tr>
<tr>
<td>Benzene (tetrapropenyl) derivatives</td>
<td>68512-02-7</td>
<td>20.0</td>
<td>40.0</td>
</tr>
</tbody>
</table>

SECTION 4: FIRST AID MEASURES

(a) Description of first aid measures:
Inhalation: If breathing is difficult, remove person to fresh air and keep at rest in a position comfortable for breathing.
Skin contact: Gently wash with plenty of water and soap.
Eye contact: Rinse cautiously with water for several minutes.
Ingestion: If swallowed, call a physician immediately.

(b) Most important symptoms and effects, both acute and delayed:
Ingestion: Not classified as hazardous; Data not available.
Inhalation: Not classified as hazardous; Data not available.
Skin contact: Not classified as hazardous; Data not available.
Eye contact: Not classified as hazardous; Data not available.

(c) Indication of any immediate medical attention and special treatment needed: Not classified as hazardous; Data not available.

SECTION 5: FIRE – FIGHTING MEASURES

(a) Extinguishing Media:
Suitable extinguishing media: Use CO₂, extinguishing powder, extinguishing powder for metal fires, or dry sand. Fight larger fires with alcohol resistant foam. Do not use water.
Unsuitable extinguishing media: Water.

(b) Special hazards arising from the substance or mixture: None known

(c) Special protective equipment and precautions for fire-fighters: Wear NIOSH approved self-contained respiratory protective device, and fully protective fire-fighting suit.

SECTION 6: ACCIDENTAL RELEASE MEASURES

(a.i) Personal precautions: Ensure adequate ventilation for general industrial environment.
(a.ii) Protective equipment: See Section 8 for details. Use personal protective equipment that is appropriate for the general industrial environment.
(a.iii) Emergency procedures: Follow emergency procedures that are appropriate for the general industrial environment.
(b) Methods for containment and cleaning up: Dike and contain spill. Soak up with inert absorbent material.
SECTION 7: HANDLING AND STORAGE

(a) Precautions for safe handling: Do not ingest. Wash hands after handling. Take off contaminated clothing and wash it before reuse.

(b) Conditions for safe storage: Keep cool and dry. Do not freeze. Ideal storage temperature is 50-90 °F (10-32 °C).

Incompatibilities: No data available

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS #</th>
<th>OSHA PEL</th>
<th>Cal/OSHA PEL 8-hour TWA (ST) Ceiling</th>
<th>NIOSH REL Up to 10-hour TWA (ST) Ceiling</th>
<th>ACGIH 2015 TVL 8-hour TWA (ST) Ceiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>aluminum powder (stabilized)</td>
<td>7429-90-5</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
<tr>
<td>No data for liquid/paste</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benzene (tetrapropenyl) derivatives</td>
<td>68512-02-7</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

(b) Appropriate engineering controls:

Ventilation requirements: Ensure adequate ventilation for general industrial environment.

General protective measures: Ensure that eye flushing /eye wash stations, and hand washing areas are accessible.

c) Personal protective equipment:

Inhalation: Use protective equipment appropriate for the general industrial environment.

Skin Contact: Wear protective gloves/protective clothing that is appropriate for the general industrial environment. Ansell Chemical Resistance Guide, 7th Edition recommends the following glove materials for alkanes (chemically similar to white mineral oil CAS 8042-47-5): Solvex, nitrile; PVA, supported polyvinyl alcohol.

Eye Contact: Wear eye protection/face protection that is appropriate for the general industrial environment.

Ingestion: Avoid eating, drinking, or smoking in work area and wash hands after handling this product.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

(a) Appearance (physical state, color): Paste, metallic silver

(b) Odor: Mild petroleum solvent

(c) Odor threshold: Data not available

(d) pH: NA

(e) Melting point/ freezing point: Data not available

(f) Initial Boiling point / Range: 424 °F (218 °C) estimated

(g) Flashpoint: 234 °F (112 °C) estimated

(h) Evaporation Rate: Data not available

(i) Flammability (solid/ gas): Data not available

(j) Upper/ lower flammability explosion limits: Data not available

(k) Vapor Pressure: Data not available

(l) Vapor Density (Air = 1): Data not available
(m) Relative Density (H₂O = 1): 1.5-1.9
(n) Solubility: Insoluble is water
(o) Partition coefficient n-Octanol/Water: Data not available
(p) Auto-ignition temperature: Data not available
(q) Decomposition temperature: Data not available
(r) Viscosity: Data not available

SECTION 10: STABILITY AND REACTIVITY INFORMATION

(a) Reactivity: Not reactive under normal storage conditions. See Section 7.
(b) Chemical stability: Mixture is chemically stable under normal storage and handling conditions, and under normal temperatures and pressures.
(c) Possibility of hazardous reactions: No data available
(d) Conditions to avoid: Keep away from high heat, and freezing.
(e) Incompatible materials: No data available
(f) Hazardous decomposition product: No data available

SECTION 11: TOXICOLOGICAL INFORMATION

(a) Likely routes of exposure: Skin contact, eye contact, inhalation, ingestion.

(b) Symptoms related to physical, chemical, and toxicological characteristics:
   - Skin contact: Not classified as Hazardous
   - Eye contact: Not classified as Hazardous
   - Inhalation: Not classified as Hazardous
   - Ingestion: Not classified as Hazardous

(c) Delayed and immediate effects, and chronic effects from long-term exposure
   - Not classified as Hazardous

(d) Numerical measures of toxicity, acute:

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS # (TS=trade secret)</th>
<th>Oral</th>
<th>Inhalation</th>
<th>Dermal</th>
</tr>
</thead>
<tbody>
<tr>
<td>aluminum powder (stabilized)</td>
<td>7429-90-5</td>
<td>LD50 15,900 mg/kg bw (rat)</td>
<td>LC50 (4 h) 888 mg/m³ air (rat)</td>
<td>No data available</td>
</tr>
<tr>
<td>Benzene (tetrapropenyl) derivatives</td>
<td>68512-02-7</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

(e) Carcinogens information:
   - IARC Group 1 (Carcinogenic to humans), Group 2A (Probably carcinogenic to humans), or Group 2B (Possibly carcinogenic to humans): This mixture does not contain listed materials
   - NTP (13th Report on Carcinogens): This mixture does not contain listed materials
   - OSHA: This mixture does not contain listed materials

SECTION 12: ECOLOGICAL INFORMATION

(a) Ecotoxicity:
   - Classification of mixture: Not classified as Hazardous

(b) Persistence and degradability: No data available
(c) Bioaccumulative potential: No data available.  
(d) Mobility in soil: No data available  
(e) Other adverse effects: No known adverse effects  

SECTION 13: DISPOSAL CONSIDERATIONS  

Dispose of contents/container in accordance with local/regional/national regulations.  

SECTION 14: TRANSPORT INFORMATION  

US DOT (Ground): Not regulated as a dangerous good  
(a) UN number: Not regulated as a dangerous good  
(b) UN Proper Shipping Name: Not regulated as a dangerous good  
(c) Transport hazard class: Not regulated as a dangerous good  
(d) Packing Group: Not regulated as a dangerous good  
(e) Environmental hazards: Not regulated as a dangerous good  
(f) Transport in bulk  
   MARPOL 73/78: Not regulated as a dangerous good  
   IBC: Not regulated as a dangerous good.  
(g) Special Precautions: None known  

SECTION 15: REGULATORY INFORMATION  

U.S. Federal Regulations  
TSCA Section 8(b) Inventory Status: All ingredients of this mixture are listed on the TSCA Inventory  
EPCRA, Section 302 – Extremely hazardous substances: This mixture does not contain listed materials.  
CERCLA Hazardous Substances: This mixture does not contain listed materials.  
EPCRA Section 313 Toxic Chemicals:  
   o aluminum powder (stabilised) CAS 7429-90-5 (as fume or dust)  
CAA 112(r) Regulated Chemicals for Accidental Release Prevention: This mixture does not contain listed materials.  
Hazardous Air Pollutants (HAP): This mixture does not contain listed materials  

U.S. State Regulations  
California Proposition 65: This mixture does not contain listed materials.  
New Jersey Right to Know:  
   o aluminum powder (stabilized) CAS 7429-90-5  
Pennsylvania Right to Know:  
   o aluminum powder (stabilized) CAS 7429-90-5  

Canadian Environmental Protection Act:  
WHMIS Classification: No data available  

European Chemical Agency (ECHA): This mixture does not contain listed materials.  

SECTION 16: OTHER INFORMATION  
The information herein is presented in good faith, based on the data available to us and is believed to be correct as of the date hereof. However, Gans Ink and Supply Co., Inc. makes no warranty, expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. Gans Ink and Supply Co., Inc. assumes no responsibility for any damages of any nature directly or indirectly resulting from the use of or reliance upon the information contained herein. Users must make their own determination as to the suitability of the product for their purpose prior to use. In accordance with good practices of personal cleanliness and hygiene, handle with due care and avoid unnecessary contact with this product.