Material Safety Data Sheet # 370
For Printing Inks and related Materials

Date of preparation: 08-6-08
MSDS # 370

I. PRODUCT IDENTIFICATION

Manufacturer: Gans Ink and Supply Co, Inc.
Address: 1441 Boyd Street
Los Angeles, CA 90033
Emergency phone: (323) 264-2200

HMIS HAZARD IDENTIFICATION

<table>
<thead>
<tr>
<th>Category</th>
<th>HMIS Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>1</td>
</tr>
<tr>
<td>Flammability</td>
<td>1</td>
</tr>
<tr>
<td>Reactivity</td>
<td>1</td>
</tr>
<tr>
<td>Personal</td>
<td>B</td>
</tr>
<tr>
<td>Protection</td>
<td></td>
</tr>
</tbody>
</table>

Product Class: Lithographic Printing Ink
Manufacturer’s code: D-315
Trade Name: Ultra HG / HD Overprint Varnish

II. COMPOSITION / INGREDIENTS

<table>
<thead>
<tr>
<th>Material</th>
<th>CAS #</th>
<th>%</th>
<th>Exposure Limits</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cobalt Tallate</td>
<td>61789-52-4</td>
<td>0.02</td>
<td>OSHA / PEL mg/m³</td>
<td>0.1 Co</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ACGIH / TLV mg/m³</td>
<td>0.02 Co</td>
</tr>
</tbody>
</table>

III. HEALTH HAZARD INFORMATION

Effects of Overexposure

**Inhalation:** This product has a low vapor pressure and is not expected to present an inhalation hazard at ambient conditions. Caution should be taken to prevent aerosolization or misting of this product. The threshold limit value (TLV) for this product as oil mist is 5 mg/M³. Exposures below 5 mg/M³ appear to be without significant health risk. Acute overexposure may result in irritation of the throat and lungs. Chronic exposure to high concentrations of aerosols or mists to laboratory animals has resulted in non-specific symptoms related to the nervous system, gastrointestinal tract, and lungs.

**Skin Contact:** Avoid skin contact. This product is non-irritating to the skin upon direct contact. Prolonged or repeated contact may result in contact dermatitis which is characterized by dryness, chapping, and reddening. This condition may make the skin more susceptible to other irritants, sensitizers, and disease. Pre-existing skin conditions may make the skin more susceptible and facilitate uptake by this route.

**Eye Contact:** Avoid eye contact. This product may be slightly irritating to the eyes upon direct contact. This product has a low vapor pressure and is not expected to present a hazard to the eyes at ambient conditions. Exposure to high concentrations of vapors may be irritating to the eyes.

**Ingestion:** Do not ingest. Ingestion of small quantities is usually nonfatal unless aspiration occurs. Severe oral intoxication will lead to intense burning of the throat and may result in drowsiness, dullness, numbness, and headache followed by dizziness, weakness, and nausea. Loss of consciousness and convulsions followed by death may result. See Notes to Physician section below.

IV. FIRST AID PROCEDURES

**Emergency & First Aid Procedures**

**Eyes:** Immediately flush eyes with large amounts of water and continue flushing for 15 minutes until irritation subsides. If irritation persists, seek medical attention.

**Skin:** Remove contaminated clothing. Wash contaminated area thoroughly with soap and water. If redness or irritation occurs, seek medical attention.
**Inhalation:** This material has a low vapor pressure and is not expected to present an inhalation exposure at ambient conditions. If mist or exposure is generated when the material is heated or handled, remove victim from exposure. If breathing has stopped or is irregular, administer artificial respiration and supply oxygen if it is available. If victim is unconscious, remove to fresh air and seek medical attention.

**Ingestion:** Do not induce vomiting. Seek immediate medical attention.

**Notes to Physician:** Aspiration may lead to chemical pneumonitis which is characterized by pulmonary edema and hemorrhage, and may be fatal. Signs of lung involvement include increased respiration rate, increased heart rate, and a bluish discoloration of the skin. Coughing, choking, and gagging are often noted at the time of aspiration. Gastrointestinal discomfort may develop, followed by vomiting, with risk of aspiration.

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**V. FIRE AND EXPLOSION DATA**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point °F:</td>
<td>&gt;260 PMCC</td>
</tr>
<tr>
<td>Auto-ignition Temperature °F:</td>
<td>428 ASTM E-659</td>
</tr>
<tr>
<td>Flammable Limits in Air</td>
<td></td>
</tr>
<tr>
<td>Lower Limit:</td>
<td>No Data</td>
</tr>
<tr>
<td>Upper Limit:</td>
<td>No Data</td>
</tr>
<tr>
<td>Extinguishing Media:</td>
<td>Use water fog, foam, CO₂, or dry chemical extinguishing media.</td>
</tr>
<tr>
<td>Special Fire Fighting Procedures:</td>
<td>Water may be ineffective, but can be used to cool containers exposed to heat or flame.</td>
</tr>
<tr>
<td>Unusual Fire &amp; Explosion Hazard:</td>
<td>Dense smoke may be generated while burning; carbon dioxide, carbon monoxide, and other oxides may be generated as products of combustion.</td>
</tr>
</tbody>
</table>

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**VI. ACCIDENTAL RELEASE**

**Steps to be taken in event of spill or release:** Absorb spills with vermiculite or other inert material and place in a suitable container. Clean up with a suitable solvent.

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**VII. HANDLING AND STORAGE**

**Handling and Storage:** Store in containers in a cool, well-ventilated area. Consumption of food and beverages should be avoided in work areas where hydrocarbons are present. Always wash hands and face with soap and water before eating, drinking, and smoking.

**Other Precautions:** For industrial use only. Do not ingest. Avoid prolonged contact with skin, contact with eyes, and breathing of mist or vapor.

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**VIII. EXPOSURE CONTROLS AND PERSONAL PROTECTION**

**Ventilation Requirements:** If vapor or mist is generated when the material is heated or handled, adequate ventilation in accordance with good engineering practice must be provided to maintain concentrations below the specific exposure or flammable limits.

**Personal Protective Equipment**

- **Respirator:** Respiratory protection is not required under conditions of normal use. If vapor or mist is generated when the material is heated or handled, use an organic vapor respirator with a dust and mist filter. All respirators must be NIOSH certified. Do not use compressed oxygen in hydrocarbon atmospheres.
- **Skin:** No skin protection is required for single, short duration exposures. For prolonged exposures, use impervious synthetic rubber clothing (boots, gloves, etc.) over parts of the body subject to exposure.
- **Eye:** Eye protection is not required under conditions of normal use. If material is handled such that it could be splashed into eyes, wear plastic face or splash-proof safety goggles.

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**IX. PHYSICAL AND CHEMICAL DATA**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Range °F:</td>
<td>400 - 600</td>
</tr>
<tr>
<td>Relative Density (H₂O = 1):</td>
<td>0.977</td>
</tr>
<tr>
<td>Material Density Lbs./Gal:</td>
<td>8.15</td>
</tr>
<tr>
<td>%Volatiles by Weight:</td>
<td>17.7</td>
</tr>
<tr>
<td>VOC: lbs/gal:</td>
<td>1.44</td>
</tr>
<tr>
<td>SOLubility in Water:</td>
<td>Insoluble</td>
</tr>
<tr>
<td>% Solids by Weight:</td>
<td>82.3</td>
</tr>
<tr>
<td>Appearance/Odor:</td>
<td>Viscous paste</td>
</tr>
<tr>
<td>Vapor Density (Air = 1):</td>
<td>&gt; 1</td>
</tr>
<tr>
<td>Vapor Pressure (mm Hg @ 70°F):</td>
<td>N/A</td>
</tr>
</tbody>
</table>

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**X. STABILITY AND REACTIVITY INFORMATION**

**Stability (Thermal, Light, etc.):** Stable

**Conditions to avoid:** Excessive heat, sources of ignition and open flame.

**Hazardous Polymerization:** Will not occur.

**Materials to avoid:** Contact with strong oxidizers.
Hazardous Decomposition Products: CO₂, CO, and other oxides may be generated as products of combustion.

XI. TOXICOLOGICAL INFORMATION
CARCINOGEN: This product has not been identified as a carcinogen by OSHA or the National Toxicology Program (NTP), or the International Agency for Research on Cancer (IARC).

Mutagen: No Data
Teratogen: No Data
Reproductive Toxicity: No Data

XII. ECOLOGICAL INFORMATION
This product has not been evaluated at this time.

XIII. DISPOSAL INFORMATION
Waste Disposal Method: If recycling as ink is not possible, material may be incinerated or land filled at a licensed facility in accordance with local, state, and federal regulations.

XIV. TRANSPORT INFORMATION
Flammability Classification:
OSHA: Class III B
DOT: Not Regulated

XV. REGULATORY INFORMATION
SARA Title III Section 313:
This material contains a chemical subject to the reporting requirements of the SARA Superfund Amendments and Reauthorization Act.

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS#</th>
<th>%</th>
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<tbody>
<tr>
<td>Cobalt Tallate</td>
<td>61789-52-4</td>
<td>0.2</td>
</tr>
</tbody>
</table>

CERCLA/ SUPERFUND
SARA Section 304 – CERCLA (Comprehensive Environmental Response, Compensation and Liability Act):
This product does not contain any components regulated under Section 304 (40 CFR 302) as hazardous chemicals for emergency release notification.

TSCA Section 8(b) Inventory Status:
All component(s) of this product are either exempt or listed on the TSCA Inventory.

Clean Air Act - Hazardous Air Pollutants (HAP):
This product does not contain any HAP, as defined by the U.S. Clean Air Act Section 112 (40 CFR 61)

Clean Air Act - Ozone Depleting Substances (ODS):
This product neither contains, nor was manufactured with, a Class I or Class II ODS.

U.S. State Regulations
Coalition of Northeast Governors (CONEG) Legislation:
This product is in compliance with CONEG (i.e. total cadmium, hexavalent chromium, lead and mercury < 100 ppm)
California Proposition 65:
This product does not intentionally contain any chemicals known by the state of California to cause cancer
and/or reproductive harm. Moreover, Gans Ink and Supply Co., Inc. does not routinely analyze its products
for impurities which may be such chemicals.

International Regulations

Canada

DSL (Canadian Domestic Substances List):
All components of this product are either exempt or listed on the DSL.

Europe

EINECS (European Inventory of Existing Commercial Chemical Substances) List:
All components are listed on EINECS or otherwise comply with EINECS requirements.

XVI. 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.