Material Safety Data Sheet # 287  
For Printing Inks and related Materials  
Date of preparation: 4/1/2010  
Updated: 6/3/2011  
MSDS #: 287

I. PRODUCT IDENTIFICATION

<table>
<thead>
<tr>
<th>Manufacturer: Gans Ink and Supply Co, Inc.</th>
<th>HMIS HAZARD IDENTIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address: 1441 Boyd Street, Los Angeles, CA 90033</td>
<td>Health: 2</td>
</tr>
<tr>
<td>Emergency phone: (323) 264-2200</td>
<td>Flammability: 1</td>
</tr>
<tr>
<td></td>
<td>Reactivity: 1</td>
</tr>
<tr>
<td></td>
<td>Personal Protection: B</td>
</tr>
</tbody>
</table>

Product Class: Lithographic UV Offset OPV  
Manufacturer’s code: UVS-4711  
Trade Name: Gloss Digital Roll CTG. / Minolta

II. HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>Material</th>
<th>CAS #</th>
<th>%</th>
<th>Exposure Limits</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acrylated Oligomers</td>
<td>Proprietary Trade Secret</td>
<td>Not Established</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acrylated Monomers</td>
<td>Proprietary Trade Secret</td>
<td>Not Established</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hexamethylene Diacrylate</td>
<td>13048-33-4</td>
<td>1 – 10</td>
<td>Xi; R 36/38, R 43</td>
<td></td>
</tr>
<tr>
<td>REACH Ref: 05-2118226686-35-0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

III. HEALTH HAZARD INFORMATION

**Effects of Overexposure**

**Inhalation:** Avoid inhalation. Inhalation of mist or vapor can cause irritation of mucous membranes and respiratory tract. Acute overexposure may result in irritation of the throat and lungs.

**Skin Contact:** Avoid skin contact. This product is 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. Moderate irritant. This product is irritating to the eyes upon direct contact. Can cause burning sensation, tearing, swelling, and redness. Those known to be sensitized to acrylates should avoid all exposure to this product.

**Ingestion:** Do not ingest. May irritate the mouth, throat, and gastrointestinal tract. 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. 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. Seek medical attention.

**Skin:** Remove contaminated clothing immediately. Wash contaminated area thoroughly with soap and water. If redness or irritation occurs, seek medical attention. Launder contaminated clothing before reuse.

**Inhalation:** 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. Never give anything by mouth to an unconscious person.

**Ingestion:** Do not induce vomiting. If vomiting should occur spontaneously keep airway clear. Seek immediate medical attention. Never give by mouth anything to an unconscious person.

**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.

### V. FIRE AND EXPLOSION DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point °F</td>
<td>212 F</td>
</tr>
<tr>
<td>Auto-ignition Temperature °F</td>
<td>No Data</td>
</tr>
<tr>
<td>Lower Limit: (Volume) %</td>
<td>No Data</td>
</tr>
<tr>
<td>Upper Limit: (Volume) %</td>
<td>No Data</td>
</tr>
</tbody>
</table>

**Extinguishing Media:** Use water spray, foam, CO₂, or dry chemical extinguishing media.

**Special Fire Fighting Procedures:** Remove all ignition sources. Firefighters wear self-contained breathing apparatus and complete personal protective equipment when entering buildings or confined areas. Keep containers cool by spraying with water if exposed to fire. Product may polymerize at high temperature. Polymerization is a highly exothermic reaction and may produce sufficient heat to cause thermal decomposition and / or rupture container.

**Unusual Fire & Explosion Hazard:** Polymerization is a highly exothermic reaction and may produce sufficient heat to cause thermal decomposition.

High temperatures and fire conditions may cause rapid and uncontrollable polymerization which can result in explosions and the violent rupture of storage vessels.

### VI. ACCIDENTAL RELEASE

**Steps to be taken in event of spill or release:** Remove all ignition sources, as spilled material may polymerize. Wear protective clothing and gloves. Move leaking containers to ventilated area. Stop discharge, if it can be performed safely. Absorb product with a suitable material such as vermiculite, cloth or sawdust. Place in a suitable container for disposal. Do NOT flush to sewer, drains or waterways. Clean up with a suitable solvent.

### VII. HANDLING AND STORAGE

**Handling and Storage:** Store in containers in a cool, well-ventilated area. DO NOT expose to direct sunlight, ultraviolet light or temperatures exceeding 140 F (60C) as it may cause uncontrollable polymerization of this product with generation of heat. Keep away from all sources of ignition and open flame. Store in stainless steel, amber glass, amber polyethylene or baked phenolic lined container. Use dry air to replace material removed from container. Avoid prolonged contact with skin, contact with eyes, and breathing of mist or vapor. Always wash hands and face with soap and water before eating, drinking, and smoking.

**Other Precautions:** For industrial use only. Do not ingest. Consumption of food and beverages should be avoided in work areas. Avoid prolonged contact with skin, contact with eyes, and breathing of mist or vapor.

### VIII. EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Ventilation Requirements:** Local exhaust is recommended. 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:** The use of impervious protective clothing (boots, gloves, aprons etc.) over parts of the body subject to exposure is recommended. DO NOT wear PVC gloves as PVC absorbs Acrylate.

**Eye:** The use of eye protection is recommended. Wear plastic face shield or splash-proof safety glasses or goggles. Eye wash stations are recommended.

### IX. PHYSICAL AND CHEMICAL DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Range °F</td>
<td>212 F (&gt;100°C)</td>
</tr>
<tr>
<td>Relative Density (H₂O = 1)</td>
<td>1.08</td>
</tr>
<tr>
<td>Material Density Lbs./Gal</td>
<td>9.0</td>
</tr>
<tr>
<td>% Volatile Organic Compounds (VOC) by Weight</td>
<td>0</td>
</tr>
<tr>
<td>VOC: lbs/gal</td>
<td>0 g/L: 0</td>
</tr>
<tr>
<td>Vapor Density (Air = 1)</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Pressure (mm Hg @ 68°F)</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Insoluble</td>
</tr>
<tr>
<td>pH</td>
<td>N/A</td>
</tr>
<tr>
<td>Acidity: (acid value: mg KOH/g)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Appearance/Odor</td>
<td>Liquid/ Ester like</td>
</tr>
</tbody>
</table>

### X. STABILITY AND REACTIVITY INFORMATION

**Stability (Thermal, Light, etc.):** Polymerization is a highly exothermic reaction and may produce sufficient heat to cause thermal decomposition and / or rupture of container.

**Conditions to avoid:** Excessive heat or direct heat sources. Avoid temperatures higher than 140 F (60 C). Avoid direct sunlight and ultraviolet light.

**Hazardous Polymerization:** Hazardous exothermic polymerization can occur when heated. Hazardous polymerization can occur when exposed to direct sunlight.

**Materials to avoid:** Avoid free radical producing initiators. Avoid sources of free radicals; peroxides, metal ions.

**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 Cancer (IARC).

**Mutagen:** No Data

**Teratogen:** No Data

**Reproductive Toxicity:** No Data

The toxicological properties have not fully been determined.

**Symbols:** Xi Irritant

**R Phrase (s):**
- R 36/38; irritating to eyes and skin
- R 43: May cause sensitization by skin contact.

**S Phrase (s):**
- S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S 28: After contact with skin, immediately wash skin with plenty of soap and cold water.
- S 36/37/39: Wear suitable protective clothing, gloves and eye / face protection.

### XII. ECOLOGICAL INFORMATION

This product has not been evaluated at this time. Toxic to aquatic organisms, may cause long – term adverse effects in the aquatic environment.

### 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 (Ground): Not Regulated
UN Number: Not applicable
ADR / RID: Not applicable
IMO/IMDG (Sea): Not applicable
IATA / ICAO (Air): Not restricted as per IATA regulations.

XV. REGULATORY INFORMATION

SARA Title III Section 313:
This material DOES NOT contain chemicals subject to the reporting requirements of the Superfund Amendments and Reauthorization Act (SARA).

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

U.S. State Regulations

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.

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.