Material Safety Data Sheet # 203.7A
For Printing Inks and related Materials

Date of preparation: 11/27/2013
MSDS#: 203.7A

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>Health</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>1</td>
</tr>
<tr>
<td>Reactivity</td>
<td>1</td>
</tr>
<tr>
<td>Personal Protection</td>
<td>B</td>
</tr>
</tbody>
</table>

Product Class: Lithographic UV Printing Ink

Manufacturer’s code: Various including UV15064

Trade Name: Vinyleure Inks & Blending bases etc.

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>Photoinitiators, mixtures</td>
<td>not available</td>
<td>3-4</td>
<td>ACGIH PEL</td>
<td>5 mg/M³</td>
</tr>
<tr>
<td>Polyol Acrylate</td>
<td>Proprietary</td>
<td>1.2</td>
<td>ACGIH PEL</td>
<td>5 mg/M³</td>
</tr>
<tr>
<td>2-[[((butylamino)carbonyl]oxy]ethyl acrylat</td>
<td>63225-53-6</td>
<td>5.0</td>
<td>Not Established Xi, R36/37/38, H315, H319, H335</td>
<td></td>
</tr>
<tr>
<td>DiTrimethylolpropane tetraacrylate</td>
<td>94108-97-1</td>
<td>10.3</td>
<td>Xi, R43</td>
<td>Not Established</td>
</tr>
<tr>
<td>2 methyl-14 phenyl-2 1-propanone</td>
<td>71868-10-5</td>
<td>7.0</td>
<td>R51/53</td>
<td>Not Established</td>
</tr>
</tbody>
</table>

Warning

Health Hazard

The specific chemical identity (including CAS No.) and/or specific concentrations of the constituents contained in this vehicle are regarded as’ Trade Secret” information.

III. HEALTH HAZARD INFORMATION

Effects of Overexposure

Inhalation: Not expected to be a hazard due to low volatility under standard conditions. Inhalation of mist or vapor may cause irritation or respiratory tract.

Skin Contact: Avoid skin contact. Contains materials that may cause moderate skin injury (reddenning and swelling) and/or sensitization. Prolonged contact may cause blister formations (burns). Since irritation may not occur immediately, contact can go unnoticed.

Eye Contact: Avoid eye contact. Moderate irritant. Can cause burning sensation, tearing, swelling, and redness. Injury may persist for several days.

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. Loss of consciousness and convulsions followed by death may result. See Notes to Physician section below.

IV. 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 if aspiration. Gastrointestinal discomfort may develop, followed by vomiting, with risk of aspiration.

V. FIRE AND EXPLOSION DATA

<table>
<thead>
<tr>
<th>Flash Point °F: &gt;212 °F</th>
<th>Auto-ignition Temperature °F: No Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable Limits in Air</td>
<td>Lower Limit: No Data</td>
</tr>
</tbody>
</table>

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

Special Fire Fighting Procedures: Remove all ignition sources. Wear self-contained breathing apparatus and complete personal protective equipment when entering confined areas. Cool containers with water to prevent polymerization.

Unusual Fire & Explosion Hazard: High temperatures and fire conditions may cause rapid and uncontrollable polymerization which can result in explosions and the violent rupture of storage vessels. Avoid the use of a stream of water to control fires since frothing can occur.

VI. ACCIDENTAL RELEASE

Steps to be taken in event of spill or release: Remove all ignition sources, as spilled material may polymerize. Move leaking containers to ventilated area. Ensure adequate ventilation. Stop discharge, if it can be performed safely, and contain material. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Place in a suitable container for disposal. Do NOT flush to sewer. Advise water authority if spillage has entered into water course or drainage system.

VII. HANDLING AND STORAGE

Handling and Storage: Store in containers in a dry, cool and well-ventilated area. Do Not store above 104°F. Avoid exposure to ultraviolet light and/or sunlight. Contamination with incompatible materials. Avoid prolonged contact with skin, contact with eyes, and breathing of mist or vapor.

Other Precautions: For industrial use only. Do not ingest. 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.

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:** Protective Neoprene gloves are recommended.

**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>&gt; 230°F</td>
</tr>
<tr>
<td>Relative Density (H₂O = 1):</td>
<td>2.71</td>
</tr>
<tr>
<td>Material Density Lbs./Gal:</td>
<td>22.59</td>
</tr>
<tr>
<td>%Volatiles by Weight:</td>
<td>&lt; 0.1</td>
</tr>
<tr>
<td>VOC: lbs/gal:</td>
<td>&lt; .02 g/L; &lt; 2.71</td>
</tr>
</tbody>
</table>

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**X. STABILITY AND REACTIVITY INFORMATION**

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

**Conditions to avoid:**  
Avoid storage >104°F, exposure to ultraviolet light and/or sunlight. Contamination with incompatible materials.

**Hazardous Polymerization:** High temperatures (>140°F) and oxygen deficient atmosphere reduce inhibitor effectiveness and may cause polymerization, raising the temperature and pressure, possible rupturing the container. Do NOT blanket or mix with nitrogen or other inert gases as this renders the inhibitor ineffective.  

**Materials to avoid:** Avoid initiators including peroxides; avoid strong oxidizing agents, copper, copper alloys, carbon steel, iron, rust, nickel, cobalt, strong bases.

**Hazardous Decomposition Products:** CO₂, CO, and other oxides may be generated as products of combustion.

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**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

**Toxicological information on the regulated components of this product is as follows:**

Polyol Acrylate  
Oral Rat LD₅₀ > 2000 mg/kg  
Skin Rabbit LD₅₀ > 2000 mg/kg

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**XII. ECOLOGICAL INFORMATION**

This product has not been evaluated at this time. As with all chemicals and products, do not allow to enter waterways, drains or sewers.

Ecological information on the regulated components of this product is as follows:  
Polyol Acrylate  
Fish 96 H LC₅₀ 1 – 10 mg/l  
Biodegradable, No bioaccumulation potential
XIII. DISPOSAL INFORMATION

**Waste Disposal Method:** If discarded in its original unused form, this product does NOT exhibit the characteristics of a RCRA hazardous waste as defined under 40CFR261. Waste materials should be dumped or buried in an approved landfill, or incinerated in a suitable combustion chamber. Disposal must comply with all local, state, and federal regulations. Of the methods of disposal currently available, it is recommended that an alternative be selected according to the following order of preference, based upon environmental acceptability:
1) Recycle or rework if at all feasible
2) Incinerate at an authorized facility
3) Treat at an acceptable waste treatment facility.

XIV. TRANSPORT INFORMATION

**Flammability Classification:**
- OSHA: Class III B
- DOT: Not Regulated
- ICAO/ IATA: Not Regulated
- IMDG/ IMO: Not Regulated

XV. REGULATORY INFORMATION

**SARA Title III Section 313:** This material contains a chemical(s) subject to the reporting requirements of the SARA Superfund Amendments and Reauthorization Act.

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mn Comp.</td>
<td>N450</td>
<td>1.10</td>
</tr>
<tr>
<td>Zn Comp.</td>
<td>N982</td>
<td>1.10</td>
</tr>
</tbody>
</table>

**Section 302 – Extremely hazardous substances:** This product does not contain any components regulated under Section 302 (40 CFR 355) as EHS.

**Section 311/312 – Hazard Categories:** Pursuant to Section 311/312 of SARA Title III, the physical and health hazard categories for this product are identified below:
- Fire Hazard – NO
- Sudden Release of Pressure Hazard – NO
- Reactivity Hazard – YES
- Immediate (acute) Health Hazard – YES
- Delayed (chronic) Health Hazard – YES.

**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

Risk Phrases:
Xi: Irritant Chemicals that may cause inflammation to the skin or other mucous membranes.
R36/38: Irritating to eyes and skin
R43: May cause sensitization by skin contact
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects to the environment.

Hazard Statement:
H315: Causes skin irritation
H319: Causes serious eye irritation
H335: May cause respiratory irritation

Warning

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.

Safety Glasses
Gloves