I. PRODUCT IDENTIFICATION

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

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>3-6</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]oxyethyl acrylat</td>
<td>63225-53-6</td>
<td>5.0</td>
<td>Not Established</td>
<td>Xi, R36/37/38, H315, H319, H335</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>
Dipentaerythritol hexaacrylate 29570-58-9 8.0 OSHA/PEL Not Established H319

Pentaerythritol, ethoxylated, Esters with acrylic acid 51728-26-8 10-12 OSHA/PEL Not Established H315, H319

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 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. Never give anything by mouth to an unconscious person. 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 or chemical resistant gloves are recommended. Safety showers are recommended.

**Eye:** If material is handled such that it could be splashed into eyes, wear plastic face shield or splash-proof safety glasses or goggles. Eyewash 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>200-392 °F</td>
</tr>
<tr>
<td>Relative Density (H₂O = 1)</td>
<td>1.13-1.35</td>
</tr>
<tr>
<td>Material Density Lbs/Gal</td>
<td>9.41-11.24</td>
</tr>
<tr>
<td>% Volatiles by Weight</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>VOC: lbs/gal</td>
<td>&lt; 0.112 g/L; &lt; 13.5</td>
</tr>
<tr>
<td>Vapor Density (Air = 1)</td>
<td>&gt; 1</td>
</tr>
<tr>
<td>Vapor Pressure (mm Hg @ 68°F)</td>
<td>Slower than Butyl Acetate</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Insoluble</td>
</tr>
<tr>
<td>% Solids by Weight</td>
<td>99</td>
</tr>
<tr>
<td>Appearance/Odor</td>
<td>Colored paste</td>
</tr>
</tbody>
</table>

**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
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  CAS #: proprietary
Oral Rat LD50 > 2000 mg/kg
Skin Rabbit LD50 > 2000 mg/kg

Pentaerythritol, ethoxylated, Esters with acrylic acid  51728-26-8
Oral LD50 > 5000 mg/m3 Rat
Dermal LD50 > 2000 mg/m3 Rat
Irritation of skin; Skin Irr OECD 404: <0.1 PIH 0-8 (rabbit)

Dipentaerythritol hexaacrylate  29570-58-9
Irritation of skin
Skin Irr OECD 404: 0.6 0-4 (rabbit) literature
On the skin: No irritant effect
Eyes: Irritating effect
Sensitization: No sensitizing effects known.

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

Dipentaerythritol hexaacrylate  29570-58-9

Pentaerythritol, ethoxylated, Esters with acrylic acid  51728-26-8

Water Hazard Class 1 (Self Assessment): Slightly hazardous for water

Negligible ecotoxicity

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**

<table>
<thead>
<tr>
<th>Flammability Classification:</th>
<th>OSHA: Class III B</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT:</td>
<td>Not Regulated</td>
</tr>
<tr>
<td>ICAO/ IATA:</td>
<td>Not Regulated</td>
</tr>
<tr>
<td>IMDG/ IMO:</td>
<td>Not Regulated</td>
</tr>
</tbody>
</table>

**XV. REGULATORY INFORMATION**

**SARA Title III Section 313:**
This material does Not contain a chemical(s) subject to the reporting requirements of the SARA Superfund Amendments and Reauthorization Act.

**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 contains a chemical(s) known by the state of California to cause cancer and/or reproductive harm.

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>Trace amounts</td>
</tr>
</tbody>
</table>

**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:
<table>
<thead>
<tr>
<th>B</th>
<th>Safety Glasses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gloves</td>
</tr>
</tbody>
</table>

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.