## 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>Flammability</th>
<th>Reactivity</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
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</table>

### 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>Pentaerythritol, ethoxylated, esters w/ acrylic acid NLP# 500-111-9</td>
<td>51728-26-8</td>
<td>2.0</td>
<td>OSHA/ PEL H319</td>
<td>NE</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ACGIH/ TLV</td>
<td></td>
</tr>
<tr>
<td>Tripropylene glycol diacrylate</td>
<td>42978-66-5</td>
<td>18.0</td>
<td>OSHA/ PEL H315, H317, H320, H335, H336</td>
<td>NE</td>
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<tr>
<td></td>
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<td>ACGIH/ TLV</td>
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<tr>
<td>Urethane acrylate Oligomer</td>
<td>Proprietary</td>
<td>60.0</td>
<td>OSHA/ PEL H315, H317, H320, H335, H336</td>
<td>NE</td>
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<td>ACGIH/ TLV</td>
<td></td>
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<tr>
<td>DiTrimethylolpropane Tetraacrylate</td>
<td>94108-97-1</td>
<td>6.75</td>
<td>OSHA/ PEL H316, H317</td>
<td>NE</td>
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<tr>
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<td>ACGIH/ TLV</td>
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</tr>
<tr>
<td>polyester acrylate</td>
<td>proprietary</td>
<td>6.75</td>
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<td>ACGIH/ TLV</td>
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<tr>
<td>Hexamethylene diacrylate</td>
<td>13048-33-4</td>
<td>2.50</td>
<td>OSHA/ PEL H315, H317, H319</td>
<td>NE</td>
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<td>ACGIH/ TLV</td>
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<tr>
<td>2-hydroxy-2-methylpropiophenone proprietary diphenyl(2,4,6-trimethylbenoyl)</td>
<td>2.4</td>
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<td>OSHA/ PEL H303, H335, H315</td>
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<td>ACGIH/ TLV</td>
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</tr>
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<td>phosphine oxide</td>
<td>75980-60-8</td>
<td>2.0</td>
<td>OSHA/ PEL H303, H315, H317, H319, H402</td>
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<td>ACGIH/ TLV</td>
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</tr>
<tr>
<td>2-Isopropyl-9H-thioxanthen-9-one</td>
<td>5495-84-1</td>
<td>2.0</td>
<td>OSHA/PEL Xi, R36/38/66, H372</td>
<td>NE</td>
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<tr>
<td>226-827-9</td>
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<td></td>
<td>ACGIH/TLV</td>
<td></td>
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<tr>
<td>Neopentylglycol propoxylated diacrylate</td>
<td>84170-74-1</td>
<td>5.0</td>
<td>OSHA/PEL Water Hazard 1</td>
<td>NE</td>
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<tr>
<td>Ethyl-4-dimethylaminobenzoate</td>
<td>10287-53-3</td>
<td>2.0</td>
<td>OSHA/PEL Water Hazard 1</td>
<td>NE</td>
</tr>
</tbody>
</table>
III. HEALTH HAZARD INFORMATION

Effects of Overexposure

Inhalation: Avoid inhalation. Can cause respiratory tract irritation. 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. Direct contact with this material may cause skin irritation. Prolonged contact may cause blister formations (burns). Since irritation may not occur immediately, contact can go unnoticed. 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. Individuals with pre-existing skin disorders can be at greater risk. Those known to be sensitized to acrylates should avoid all exposure to this product.

Eye Contact: Avoid eye contact. This product is slightly irritating to the eyes upon direct contact. Overexposure to high concentrations of vapors can cause irritation to the eyes.


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. Particular attention should be paid to hair, nose, ears, and other areas not easily cleaned.*

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 immediate medical attention.

Ingestion: Do not induce vomiting. Seek immediate medical attention. Never give anything by mouth 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>Flash Point °F:</th>
<th>&gt; 212 °F</th>
<th>Auto-ignition Temperature °F: No Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable Limits in Air (% Volume)</td>
<td>Lower Limit: No Data</td>
<td>Upper Limit: No Data</td>
</tr>
</tbody>
</table>

Extinguishing Media: Use water fog or spray, 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 where potential for exposure to vapors or products of combustion exists. Keep containers cool by spraying with water if exposed to fire.

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 or containers. 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: Ventilate area. Remove all ignition sources, open flame etc. as spilled material may polymerize. Wear protective clothing and gloves. Absorb with inert material such as vermiculite, sand, silica gel, dirt. Scrape up with trowel or scoop and place in a suitable container. Do not allow to enter waterways, drains or sewers. Dispose of in accordance to state, local and Federal regulations.

VII. HANDLING AND STORAGE

Handling and Storage: Store in containers in a cool, well-ventilated area. Keep away from all sources of ignition, open flame. Do not store in direct sunlight or in ultraviolet light. Product can slowly polymerize. Do not store above 95°F (35°C). Protect from freezing. Keep away from oxidizing agents, alkaline and acid materials. Avoid prolonged contact with skin, contact with eyes, and breathing of mist or vapor. Keep containers tightly closed. Wash thoroughly after handling.

Other Precautions: For industrial use only. Do not ingest. 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. Consumption of food and beverages should be avoided in work areas.

VIII. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ventilation Requirements: 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: 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.

Skin: Chemical resistant gloves (Neoprene) are recommended. A combination of barrier cream, applied before exposure, and gloves is recommended. Do not apply cream after exposure. Safety showers are recommended.

Eye: 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>212 – 525 °F</td>
</tr>
<tr>
<td>Relative Density (H₂O = 1)</td>
<td>1.26 - 1.29</td>
</tr>
<tr>
<td>Material Density Lbs./Gal</td>
<td>10.52 – 10.74</td>
</tr>
<tr>
<td>% Volatile Organic Compounds (VOC) by Weight:</td>
<td>&lt; 0.8</td>
</tr>
<tr>
<td>VOC: lbs/gal:</td>
<td>&lt; 0.09 g/L: &lt; 10.33</td>
</tr>
<tr>
<td>Appearance/Odor</td>
<td>Light Colored paste</td>
</tr>
</tbody>
</table>

X. STABILITY AND REACTIVITY INFORMATION

Stability (Thermal, Light, etc.): Stable under conditions of

Conditions to avoid: Avoid excessive heat, open flame, sources of ignition, exposure to light, loss of dissolved air, loss of polymerization inhibitor. Do not store above 90°F, Keep from freezing.

Hazardous Polymerization: May occur. Uncontrolled polymerization may cause rapid evolution of heat and increased pressure that could result in violent rupture of sealed storage vessels or containers.

Materials to avoid: Contamination with incompatible materials. Polymerization initiators including peroxides; strong oxidizing agents, copper, copper alloys carbon steel, iron, rust, and strong bases.

Hazardous Decomposition Products: Fumes produced when heated to decomposition may include carbon monoxide and carbon dioxide and other oxides 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

Tripropylene glycol diacrylate 42978-66-5

Acute Oral (rat) LD 50  6800 mg/ kg  
Acute Dermal (rabbit) LD50 > 2000 mg/ kg

Hexamethylene diacrylate 13048-33-4  
Oral LD50 > 5000 mg/kg Rat  
Dermal LD50 > 3000 mg/kg Rabbit

Pentaerythritol, ethoxylated esters w/ acrylic acid 51728-26  
Oral LD50 > 5000 mg/kg Rat  
Dermal LD50: >2,000 mg/kg Rat

### XII. ECOLOGICAL INFORMATION

Tripropylene glycol diacrylate 42978-66-5  
LC50 96 hrs, Fish mg/l  > 2000 mg/kg body weight (analogy)

2-hydroxy-2-methylpropiophenone 7473-98-5 H402: Harmful to aquatic organisms.

Phosphine oxide 75980-60-8 H402: Harmful to aquatic organisms

Neopentylglycol propoxylated diacrylate 84170-74-1 Water Hazard 1

Ethyl-4-dimethylaminobenzoate 10287-53-3 Water Hazard 1

This product is a Water Hazard 1.

As with all products do not allow to enter into sewers, waterways or drains.

### 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 Does Not contain chemicals 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>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>Trace amount</td>
</tr>
</tbody>
</table>

**XVI. OTHER INFORMATION**

**Hazard statements**

H301: Toxic is swallowed
H315: Causes skin irritation
H317: May cause an allergic reaction, skin sensitization.
H319: Causes serious eye irritation
H320: Irritating to eyes
H335: May cause respiratory irritation
H372: Prolonged or repeated exposure may cause chronic eye irritation
H402: Harmful to aquatic life

**Risk Phrases**

R36/38: Irritating to eyes and skin
R66: Repeated exposure may cause skin dryness and cracking
X1: Irritant

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