

**Material Safety Data Sheet #228**  
**For Printing Inks and related Materials**  
**OSHA Hazard Communication Standard, 29 CFR 1910.1200**

Date of preparation: 7/28/2011  
MSDS #: 228

**I. PRODUCT IDENTIFICATION**

Manufacturer: Gans Ink and Supply Co, Inc. Address: 1441 Boyd Street Los Angeles, CA 90033  Emergency phone: (323) 264-2200	<b>HMIS HAZARD IDENTIFICATION</b>								
	<table border="1"> <tr><td>Health</td><td>2</td></tr> <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> </table>	Health	2	Flammability	1	Reactivity	1	Personal Protection	B
Health	2								
Flammability	1								
Reactivity	1								
Personal Protection	B								
<b>Product Class:</b> UV Coatings	<b>Manufacturer's code:</b> UV11655								
<b>Trade Name:</b> UV Flame Retardant Coating									

**II. HAZARDOUS INGREDIENTS**

Material	CAS #	%	Exposure Limits	Units
Epoxyated Trimethylolpropane triacrylate	28961-43-5	29.0	OSHA/ PEL ACGIH/ TLV	Not Established Not Established
Trimethylolpropane tryacrylate	15625-89-5	1.5	OSHA/ PEL ACGIH/ TLV	Not Established Not Established
2-hydroxy-2-methylprophenone	7473-98-5	proprietary	OSHA/ PEL ACGIH/ TLV	Not Established
hydroxy acrylate (mix)	25584-83-2	< 1.0	OSHA/ PEL ACGIH/ TLV	Not Established Not Established
photoiniator blends	Proprietary	< 1.0	OSHA / PEL ACGIH / TLV	Not Established Not Established
hexamethylene diacrylate	13048-33-4	proprietary	OSHA / PEL ACGIH / TLV	Not Established Not Established

**III. HEALTH HAZARD INFORMATION**

<b>Effects of Overexposure</b>
<b>Inhalation:</b> Avoid inhalation. Inhalation of mist or vapor may cause respiratory tract irritation. Acute overexposure may result in irritation of the throat and lungs.
<b>Skin Contact:</b> Avoid skin contact. Contains materials that may cause moderate skin injury (reddening and swelling) and/or sensitization. Prolonged contact may cause blister formations (burns). 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. Individuals with pre-existing skin disorders can be at greater risk. Since irritation may not occur immediately, contact can go unnoticed. Those known to be sensitized to acrylates should avoid all exposure to this product.
<b>Eye Contact:</b> Avoid eye contact. Moderate irritant. Can cause burning sensation, tearing, swelling and redness. Individuals with pre-existing eye disorders can be at greater risk. Those known to be sensitized to

acrylates should avoid all exposure to this product. Exposure to high concentrations of vapors may be irritating to the eyes.

**Ingestion:** Do not ingest. Contains materials that might be slightly toxic. 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. Do not reuse contaminated clothing without laundering.

**Inhalation:** 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. Only induce vomiting at the instruction of a physician. 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

<b>Flash Point °F:</b> 212 F		<b>Auto-ignition Temperature °F:</b> No Data	
<b>Flammable Limits in Air (% Volume)</b>	<b>Lower Limit:</b> No Data	<b>Upper Limit:</b> No Data	
<b>Extinguishing Media:</b> Use water spray or fog, foam, CO <sub>2</sub> , or dry chemical extinguishing media.			
<b>Special Fire Fighting Procedures:</b> Remove all ignition sources. Wear self contained breathing apparatus and complete protective equipment when entering confined areas. Water may be ineffective, but can be used to cool containers exposed to heat or flame.			
<b>Unusual Fire &amp; Explosion Hazard:</b> High temperatures and fire conditions may cause rapid and uncontrolled 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. Dense smoke may be generated while burning; carbon dioxide, carbon monoxide, and other oxides may be generated as products of combustion.			

#### 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 a ventilated area. Stop discharge if it can be performed safely and contain material. Absorb with an inert material such as vermiculite, clay, sand etc. and place in a suitable container for disposal. DO NOT FLUSH TO SEWER.

#### VII. HANDLING AND STORAGE

**Handling and Storage:** Store in containers in a cool, well-ventilated area. Store in sealed containers away from heat, open flame, and oxidizing materials. Keep containers closed when not in use. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Always wash hands and face with soap and water before eating, drinking, and smoking. Protect from direct sunlight, as this may cause uncontrollable polymerization of the product with generation of heat.

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

### VIII. EXPOSURE CONTROLS AND PERSONAL PROTECTION

<b>Ventilation Requirements:</b> 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.
<b>Personal Protective Equipment</b>
<b>Respirator:</b> 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.
<b>Skin:</b> Impervious gloves (neoprene) are recommended. A combination barrier cream, applied before exposure and gloves are recommended. <b>DO NOT APPLY CREAM AFTER EXPOSURE.</b>
<b>Eye:</b> Eye protection is recommended. If material is handled such that it could be splashed into eyes, wear plastic face shield or splash-proof safety glasses or goggles.

### IX. PHYSICAL AND CHEMICAL DATA

<b>Boiling Range °F:</b> 176 – 212 F	<b>Vapor Density (Air = 1):</b> No Data
<b>Relative Density (H<sub>2</sub>O = 1):</b> 1.37	<b>Vapor Pressure (mm Hg @ 68°F):</b> < 0.2
<b>Material Density Lbs./Gal:</b> 11.41	<b>Solubility in Water:</b> Insoluble
<b>% Volatile Organic Compounds (VOC) by Weight:</b> < .2	<b>Evaporation Rate:</b> No Data <b>pH:</b> No Data
<b>VOC: lbs/gal:</b> .021 g/L: 2.56	<b>Appearance/Odor:</b> Lt. Yellow Liquid

### X. STABILITY AND REACTIVITY INFORMATION

<b>Stability (Thermal, Light, etc.):</b> Stable	<b>Conditions to avoid:</b> Excessive heat, sources of ignition, open flame. Direct sunlight and UV sources. Loss of dissolved air.
<b>Hazardous Polymerization:</b> High temperatures 60 °C (> 140 °F) and oxygen deficient atmosphere reduce inhibitor effectiveness and may cause polymerization, thereby raising the temperature and pressure, possibly rupturing the container. <b>DO NOT BLANKET OR MIX WITH NITROGEN</b> or other inert gases as this renders the inhibitor ineffective.	<b>Materials to avoid:</b> Contact with alkalis, peroxides, strong oxidizing agents, copper, iron, rust, carbon steel, reactive metals, and strong bases.
<b>Hazardous Decomposition Products:</b> CO <sub>2</sub> , CO, nitrogen and other oxides may be generated as products of combustion.	

### XI. TOXICOLOGICAL INFORMATION

<b>CARCINOGEN:</b> 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).	
<b>Mutagen:</b>	No Data
<b>Teratogen:</b>	No Data
<b>Reproductive Toxicity:</b>	No Data
<b>Toxicological information on the regulated components is as follows:</b>	
Epoxyated	
Trimethylolpropane triacrylate	28961-43-5
Acute Dermal (Rabbit) LD50 > 13 gm/kg	
Trimethylolpropane tryacrylate 15625-89-5	
Acute Dermal (Rabbit) LD50 5000 mg/kg.	
Acute Oral (Rat) LD50 5190 uL/kg	
hydroxy acrylate (mix) 25584-83-2	
Oral (Rat) LD50 > 2,000 mg/kg	
Dermal (Rabbit) LD50 > 2,000 mg/kg	

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

2-hydroxy-2-methylprophenone            7473-98-5  
Oral (Rat) LD50 1694 mg/kg  
Dermal (Rat) LD50 6930 mg/kg

#### **XII. ECOLOGICAL INFORMATION**

This product has not been evaluated at this time. However as with all chemicals and products DO Not allow to enter waterways, drains, sewers etc.

#### **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:** Not applicable  
**OSHA:** Class III B  
**DOT:** Not Regulated  
**IMDG / IMO:** Not Regulated  
**IATA/ ICAO:** Not Regulated  
**Canada:** 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 ingredient that is regulated under Section 302 (40 CFR 355) as an “Extremely Hazardous Substance”.

**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

**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)

**TSCA Section 8(b) Inventory Status:**

All component(s) of this product are either exempt or listed on the TSCA Inventory.

**Canada**

**DSL (Canadian Domestic Substances List):**

All components of this product are included / or listed on the DSL.

**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.

<u>Chemical</u>	<u>CAS #</u>	<u>%</u>
Toluene	108-88-3	Trace amounts

#### **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.