

Material Safety Data Sheet # 214
For Printing Inks and related Materials
OSHA Hazard Communication Standard, 29 CFR 1910.1200

Date of preparation: 12-18-08
 Updated: 1-19-2012
 MSDS #: 214

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 border="1"> <tr><td>Health</td><td>2</td></tr> <tr><td>Flammability</td><td>1</td></tr> <tr><td>Reactivity</td><td>2</td></tr> <tr><td>Personal Protection</td><td>B</td></tr> </table>	Health	2	Flammability	1	Reactivity	2	Personal Protection	B
Health	2								
Flammability	1								
Reactivity	2								
Personal Protection	B								
Product Class: UV Satin Coating	Manufacturer's code: S-1865P								
Trade Name: UV Satin Coating 9701									

II. HAZARDOUS INGREDIENTS

Material	CAS #	%	Exposure Limits	Units
Trimethylol Propane Triacrylate	15625-89-5	10 – 30		
Multi-Functional Acrylated Epoxy Monomer Mixture	Trade Secret	10 – 30		
Tripropylene Glycol Diacrylate	42978-66-5	10 – 30		
Proprietary Ingredient	Trade Secret	10 – 30		
Trimethylol Propane Ethoxy Triacrylate	28961-43-5	5 – 15		
Amine Acrylate	Trade Secret	5 – 15		
Hydrated Amorphous Silica	7631-86-9	5 – 15		
Benzophenone	119-61-9	3 – 7		

III. HEALTH HAZARD INFORMATION

Effects of Overexposure
Inhalation: Inhalation is an unlikely route of exposure under conditions of intended use. Higher temperatures may generate vapors that may cause irritation of the eyes and respiratory tract. No chronic health hazards have been associated with this material.
Skin Contact: Avoid skin contact. Material may be harmful if absorbed thorough the skin. Skin contact is expected to be the primary route of exposure. Contact with skin may cause moderate to severe irritation. Material may cause allergic skin reaction. Initial contact may go unnoticed, irritant effects may be delayed. Symptoms may include redness, itching, drying and cracking of skin. 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: Warning: Avoid eye contact. Contact with eyes may cause moderate to severe eye irritation. Symptoms may include stinging, tearing, redness, swelling and / or burning.

Ingestion: Do not ingest. Excessive quantities may be harmful. Ingestion is an unlikely route of exposure. Deliberate ingestion of excessive quantities may be harmful. 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, lifting upper and lower lids occasionally. Seek immediate medical attention if irritation or redness persists.

Skin: Remove contaminated clothing. Wash contaminated area thoroughly with soap and water. Solvents should not be used to clean skin because of increased penetration potential. Seek immediate medical attention if irritation persists. Wash clothing and thoroughly clean shoes before reuse.

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: If excessive quantities are swallowed, 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 of aspiration. Gastrointestinal discomfort may develop, followed by vomiting, with risk of aspiration.

V. FIRE AND EXPLOSION DATA

Flash Point °F: 212 F >100 C (Closed Cup)		Auto-ignition Temperature °F: No Data	
Flammable Limits in Air (% Volume)	Lower Limit: No Data	Upper Limit: No Data	
Extinguishing Media: Use NFPA Class B Fire extinguishers, carbon dioxide, all purpose dry chemical or alcohol foam designed to extinguish flammable liquid fires. Polymer foam is preferred for large fires.			
Special Fire Fighting Procedures: The use of self-contained breathing apparatus is recommended for firefighters. Water may be ineffective, but may be used to cool exposed containers to prevent pressure buildup and possible auto-ignition or explosion when exposed to extreme heat. If water is used, fog nozzles are preferable.			
Unusual Fire & Explosion Hazard: Dense smoke, soot may be generated while burning; carbon dioxide, carbon monoxide, and other oxides may be generated as products of combustion. There is a possibility of pressure build-up in containers when heated. This product may support combustion and may be ignited by extreme heat or flame.			

VI. ACCIDENTAL RELEASE

Steps to be taken in event of spill or release: Keep unnecessary personnel away from spill area. Ventilate area of spill. Use appropriate personal protective equipment. Soak up small spill with inert material (if large spill, dike area). Pick up bulk of spill and put in container for recovery or disposal. Wash spill area with strong detergent and water. Keep all materials out of drains, sewers or waterways. UV/EB curable products will not dry by evaporation. It is important that any spills be completely cleaned; otherwise these products will remain a continued source of exposure.

VII. HANDLING AND STORAGE

Handling and Storage: Store in compatible metal or opaque HDPE containers in an adequately ventilated area away from light. UV/EB curable products are reactive and may degrade or polymerize when stored for extended periods of time under conditions of extreme heat. In order to prolong the shelf-life, it is recommended that containers of these products be stored at temperatures between 40 F and 115 F (4.5C – 45C). Empty containers retain residues; all hazard precautions given should be observed. Always wash hands and face with soap and water before eating, drinking, and smoking.

Other Precautions: For industrial use only. Do not ingest. Protect from freezing. Close container after

each use. Use and store this product with adequate ventilation. Avoid prolonged contact with skin, contact with eyes, and breathing of mist or vapor.

VIII. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ventilation Requirements: No special requirements under conditions of intended use. 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, a NIOSH/ MSHA approved respirator should be used.

Skin: Barrier cream (applied before exposure) should be used along with impervious gloves. Use a chemical resistant apron and face shield if a splash hazard exists. Provide readily accessible safety showers.

Eye: Safety glasses, full face shield or chemical safety goggles are recommended to prevent eye contact. Eye protection should meet the specifications of ANSI Z87.1 Provide readily accessible eye wash stations.

IX. PHYSICAL AND CHEMICAL DATA

Boiling Range °F: Not Determined	Vapor Density (Air = 1): > 1
Relative Density (H₂O = 1): 1.10	Vapor Pressure (mm Hg @ 68 °F): No Data
Material Density Lbs./Gal: 9.15	Solubility in Water: Insoluble
%Volatiles by Weight: 0	Evaporation Rate: Not Applicable pH: Not applicable
VOC: lbs/gal: 0 g/L: 0	Appearance/Odor: Milky white liquid / Acrylate odor

The US EPA has determined that Method 24 analysis on the uncured product is inappropriate. The EPA suggests that the test be modified to evaluate cured products. Average Method 24 VOC values for the cured products are less than 1.0 %.

X. STABILITY AND REACTIVITY INFORMATION

Stability (Thermal, Light, etc.): Stable under normal conditions of storage and intended use. However, polymerization may occur if the product is exposed to extreme heat or incompatible materials.	Conditions to avoid: Avoid excessive heat (>140°F) and sources of ignition. Avoid storage above 115°F (45°C), exposure to light, loss of dissolved air, loss of polymerization inhibitor and contamination with incompatible materials.
Hazardous Polymerization: Polymerization may occur if the product is exposed to extreme heat or incompatible materials.	Materials to avoid: Strong acids, strong bases, oxidizing agents, polymerization initiators, copper, copper alloys, carbon steel, iron and rust.
Hazardous Decomposition Products: Carbon dioxide and carbon monoxide.	

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) in concentrations of 0.1 percent or greater.

Mutagen: See Below

Teratogen: See Below

Reproductive Toxicity: No Data

Information pertaining to the health effects and toxicity of the “pure” form of the hazardous components identified in Section 2 is presented below. This information reflects the known hazards associated with the components and may not reflect that of the purchased material due to concentration (dilution) effects. Review and interpretation by your Hazard Communication Department is recommended

Trimethylol Propane Triacrylate:

Acute animal toxicity data: Moderately irritating to eyes (rabbit). Moderately irritating to skin (rabbit)
Repeated skin exposure produced irritation in animal studies. Practically non-toxic following oral administration. (Rat)

Multi-Functional Acrylated Epoxy Monomer Mixture:

Acute animal toxicity data:

Eyes: Highly irritating to eyes (rabbit).

Skin: Moderately irritating to skin (rabbit). Repeated skin exposure produced irritation in animal studies.

Dermal: Produced dermal sensitization (guinea pigs).

Oral: No more than slightly toxic if swallowed.

Tripropylene Glycol Diacrylate

Acute animal toxicity data:

Eyes: Slightly irritating to eyes (rabbit) s

Skin: Slightly irritating to skin (rabbit). Repeated skin exposure produced irritation in animal studies.

Oral: Practically non-toxic following oral administration (rat).

Proprietary Material

Component may cause mild to moderate eye and skin irritation. Skin contact may also cause skin sensitization

Trimethylol Propane Ethoxy Triacrylate:

Acute animal toxicity data:

Eyes: Moderately irritating to eyes (rabbit).

Skin: Moderately irritating to skin (rabbit). Repeated skin exposure produced skin irritation in animal studies.

Oral: Practically non-toxic following oral administration (rat)

Amine Acrylate:

Acrylated amines generally exhibit moderate toxicity. Some substances in this class of materials have indicated limited evidence of mutagenicity in “in vitro” tests. Limited studies indicated no evidence of teratogenicity in animals. A lifetime painting study with mice indicated no evidence of carcinogenicity.

Hydrated Amorphous Silica

Eyes: Mildly irritating to eyes.

Skin: Mildly irritating to skin.

Acute Inhalation LC50: Nuisance dust

Acute Dermal LD50: N/A

Acute Oral LD50: Estimated >5g/kg. Not significantly toxic.

Benzophenone

Acute animal toxicity data:

Eyes: Slightly irritating to eyes (rabbit).

Skin: Slightly irritating to skin (rabbit).

Oral: Practically non toxic following oral administration (rat).

XII. ECOLOGICAL INFORMATION

Hydrated Amorphous Silica

Environmental Toxicity:

Invertebrates: 24th, EC50 Water flea (Daphnia magna) > 1000ppm

Fish: 96th, EC50 Fish > 10,000ppm

Benzophenone

Environmental Toxicity:

Invertebrates: 24th, EC50 Water flea (Daphnia magna) <1mg/l
Fish: 96th, LC50 Fish 15.3mg/l

Trimethylol Propane Triacrylate:	No Information Available
Multi-Functional Acrylated Epoxy Monomer Mixture:	No Information Available
Tripropylene Glycol Diacrylate:	No Information Available
Proprietary Material:	No Information Available
Trimethylol Propane Ethoxy Triacrylate:	No Information Available
Amine Acrylate:	No Information Available

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.

Do not allow this product to enter the sewer systems or drains.

Since empty containers retain residues; all hazard precautions given should be observed.

XIV. TRANSPORT INFORMATION

Flammability Classification:	Combustible
OSHA:	Class III B
US DOT Hazard Classification:	Not Regulated
IATA Hazard Classification:	Not Regulated
Canadian TDG Hazard Classification:	Not Regulated

XV. REGULATORY INFORMATION

SARA Title III Section 313 (40 CFR 372) Component(s) above 'de minimus' level:

This material DOES NOT contain any chemicals in quantities which must be reported under the supplier notification requirements of Section 313 of the Emergency Planning and Community Right to Know Act of 1986.

TSCA Section 8(b) Inventory Status:

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

U.S. State Regulations

California Proposition 65:

This product DOES NOT contain any chemicals known by the state of California to cause cancer and/or reproductive harm.

Clean Air Act Amendment (HAPs)

This product does not contain any chemicals which are defined as Hazardous Air Pollutants under the Title III of the Clean Air Act Amendment of 1990.

CONEG

This product is certified to be in full compliance with CONEG Model Toxics Legislation for packaging and packaging components.

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.

B

Safety Glasses
Gloves

