

Material Safety Data Sheet # 213
For Printing Inks and related Materials
OSHA Hazard Communication Standard, 29 CFR 1910.1200

Date of preparation: 3/4/04
 Supersedes: 9/3/08
 Updated: 4/13/2011
 MSDS #: 213

I. PRODUCT IDENTIFICATION

Manufacturer: Gans Ink and Supply Co, Inc. Address: 1441 Boyd Street Los Angeles, CA 90033 Emergency phone: (323) 264-2200	<p align="center">HMIS HAZARD IDENTIFICATION</p> <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								
Product Class: Lithographic UV Printing	Manufacturer's code: Various, X010056, X100729, X100730, X100972, X101084, MR-1986, X101166, UV11494, X101090, X101669, X102654, X101074 etc.								
Trade Name: UV Invisible Fluorescent Inks									

II. HAZARDOUS INGREDIENTS

Material	CAS #	%	Exposure Limits	Units
Trimethylolpropane Triacrylate	15625-89-5	17 – 19	Not Established	
Photoinitiators, mixtures	not available	3 - 4	ACGIH/ PEL 5 mg/M ³ 8-hr TWA	
Glycerol, propoxylated esters w/ acrylic acid	52408-84-1	7 – 27	Not Established	
2-hydroxy-2-methylpropiophenone	7473-98-5	1 – 5	Not Established	
Neopentylglycol propoxylated diacrylate	84170-74-1	6 – 8	Not Established	
Hydroxypropyl acrylate	25584-83-2	3 – 4	Not Established	
Pentaerythritol, ethoxylated, esters with acrylic acid	1728-26-8	proprietary	Not Established	
2-[[butylamino)carbonyl]oxy] ethyl acrylat	63225-53-6	15 – 21	Not Established	
(-methyl-1,2-ethanediy)bis[oxy (methyl-2,1-ethanediy)]diacrylate	42978-66-5	5 – 6	Not Established	
Hazard Description: Skin, eye or inhalation irritant Xi, R 36/ 38-43				

III. HEALTH HAZARD INFORMATION

Effects of Overexposure

Inhalation: This product is moderately irritating if inhaled. Inhalation of mist or vapor may cause irritation or respiratory tract. 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. This product is irritating to the skin upon direct contact. 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. Those known to be sensitized to acrylates should avoid all exposure to this product. Prolonged contact may cause blister formations (burns). Since irritation may not occur immediately, contact can go unnoticed.
Eye Contact: Moderate irritant Can cause burning sensation, tearing, swelling, and redness. Injury may persist for several days. Exposure to high concentrations of vapors can be irritating to the eyes.
Ingestion: 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 <i>Notes to Physician</i> 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. Retract eyelids often. Seek immediate medical attention.
Skin: Remove contaminated clothing. Wash contaminated area thoroughly with soap and water. If redness or irritation occurs, seek medical attention. Wash skin with mild non abrasive soap. Pay particular attention to hair, nose, ears and other areas not easily cleaned. Do not use solvents for cleaning hands or skin because solvents may increase penetration of the product into the skin. Seek medical attention. Launder contaminated clothing with an alkaline detergent before reusing. Discard all contaminated shoes, belts or other leather goods.
Inhalation: Remove patient to fresh air. 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. Do not induce vomiting as aspiration risk exceeds poisoning risk. If a person swallows Acrylate products, give lukewarm water (1 pint) only if person is completely conscious and alert . 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 of aspiration. Gastrointestinal discomfort may develop, followed by vomiting, with risk of aspiration.

V. FIRE AND EXPLOSION DATA

Flash Point °F: 212 F	Auto-ignition Temperature °F: No Data
Flammable Limits in Air	Lower Limit: No Data Upper Limit: No Data
Extinguishing Media: Use water fog, foam, CO ₂ , or dry chemical extinguishing media	
Special Fire Fighting Procedures: Do not enter fire area without proper protection. Fight fire from a safe distance. Remove all ignition sources. Wear self contained breathing apparatus and complete personal protective gear when entering confined places. Water may be ineffective in firefighting due to low solubility. Use water spray or fog for cooling	
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. There is a possibility of pressure build up in containers when heated. Cool containers exposed to fire with water to prevent polymerization. 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. Stop discharge, if it can be performed safely, and contain material. Absorb remaining material or small spills with an inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Place in a suitable container for disposal.

Wash spill area with a strong detergent and water solution; rinse with water, contain and minimize water use during clean-up. Do NOT flush to sewer. Keep out of drains and watercourses.

VII. HANDLING AND STORAGE

Handling and Storage: Wear proper protective clothing and gloves when handling. Store containers in a cool, well-ventilated area. Do Not store above 38 °C/ 100 °F or excessive cold temperatures, 0 °C/ 32 F. Store in tightly closed containers away from heat, sparks, open flame, sources of ignition. Avoid exposure to ultraviolet light and/or sunlight. This may cause uncontrollable polymerization of the product with generation of heat. Avoid prolonged contact with skin, contact with eyes, and breathing of mist or vapor. Always wash hands and face with soap and water after handling. Do not use solvents for cleaning hands or skin, as solvents may increase the penetration of the product into the skin.

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

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: Use impervious synthetic rubber clothing (apron, boots, gloves, etc.) over parts of the body subject to exposure. A barrier cream is recommended to be applied on clean hands before applying gloves, not after exposure. A barrier cream alone is not recommended; as it is not impervious to chemicals. Safety showers are recommended

Eye: Eye protection is required under conditions of normal use. Wear plastic face shield or splash-proof safety glasses or goggles. Eye wash stations are recommended

IX. PHYSICAL AND CHEMICAL DATA

Boiling Range °F: 212 – 355 F	Vapor Density (Air = 1): >1
Relative Density (H₂O = 1): 1.15 – 1.41	Vapor Pressure (mm Hg @ 68°F): slower than Butyl Acetate
Material Density Lbs./Gal: 9.58 – 11.74	Solubility in Water: Insoluble
%Volatiles by Weight: <1	% Solids by Weight: 99-100
VOC: lbs/gal: <0.12 g/L: < 14.10	Appearance/Odor: Colored paste

X. STABILITY AND REACTIVITY INFORMATION

Stability (Thermal, Light, etc.): Stable under normal circumstances and conditions of proper storage.	Conditions to avoid: Excessive heat, 38 °C/ 100 F or cold 0 °C/ 32 F. Sources of ignition. Loss of dissolved air or loss of polymerization inhibitor. Contamination of incompatible materials. Avoid storage >100°F, contamination with incompatible materials. Ultraviolet light, and/or sunlight. Polymerization occurs when exposed to white light, ultraviolet light or heat.
Hazardous Polymerization: High temperatures (38	Materials to avoid: Avoid initiators including

°C/ 100°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.	peroxides; avoid strong oxidizing agents, strong alkalis or reactive metals such as copper, copper alloys, carbon steel, iron, rust, nickel, cobalt, strong bases to prevent exothermic polymerization.
Hazardous Decomposition Products: CO ₂ , CO, and other oxides may be generated 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
Toxicological information on the regulated components of this product is as follow:	
Pentaerythritol, ethoxylated, esters with acrylic acid	51728-26-8
Oral (Rat) LD50 > 5000 mg/kg	
Dermal (Rat) LD50 > 2000 mg/kg	
Trimethylolpropane	15625-89-5
Oral (Rat) LD50 5190 uL/kg	
Dermal (Rabbit) LD50 5000 mg/kg	
Tripropylene glycol diacrylate	42978-66-5
Oral (Rat) LD50 > 5000 mg/kg	
Dermal (Rabbit) LD50 > 3000 mg/kg	
2-[[butylamino)carbonyl]oxy] ethyl acrylat	63225-53-6
Oral (Rat) LD50 > 5000 mg/kg	
Dermal (Rabbit) LD50 > 3000 mg/kg	

XII. ECOLOGICAL INFORMATION

This product has not been evaluated at this time. Components of this product are toxic for fish. As with all chemicals and products Do Not allow to enter waterways, sewers, drains etc.

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

IMO/ IMDG: Not Regulated
IATA/ ICAO: Not Regulated

Not classified as dangerous in the meaning of transport regulations

XV. REGULATORY INFORMATION

SARA Title III Section 313:

This product Does Not contain a chemical subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-know Act.

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 known by the state of California to cause cancer 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.