

Material Safety Data Sheet # 203.14
For Printing Inks and related Materials
OSHA Hazard Communication Standard, 29 CFR 1910.1200

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 MSDS # 203.14

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>3</td> </tr> <tr> <td>Flammability</td> <td>1</td> </tr> <tr> <td>Reactivity</td> <td>1</td> </tr> <tr> <td>Personal Protection</td> <td>C</td> </tr> </table>	Health	3	Flammability	1	Reactivity	1	Personal Protection	C
Health	3								
Flammability	1								
Reactivity	1								
Personal Protection	C								
Product Class: UV-cure Flexographic Printing Ink	Manufacturer's code: Various including UV11600 – 3, UV 14426, UV14312, UV12758, UV14665, UV14692, UV14694- 95, UV14814, UV13071, X102900 to X102904, UV14973-77, UV15008, etc.								
Trade Name: UVFlex Process, UV Pantone, V2 , bases and blending inks, overprint varnishes									

II. HAZARDOUS INGREDIENTS

Material	CAS #	%	Exposure Limits	Units
Pentaerythritol Triacrylate	3524-68-3	5- 9	OSHA/ PEL	Not Established
Pentaerythritol tetraacrylate	4986-89-4	6-14	OSHA / PEL	Not Established
Pentaerythritol ,ethoxylated esters w/ acrylic acids	51728-26-8	10.0	OSHA/ PEL	Not Established
(1-methyl-1,2ethanediy)bis[oxy (methyl-2,1-ethanediy)diacrylate	42978-66-5 EINECS 256-032-2	9.39	OSHA/ PEL Xi; R36/37/38. N;R51/53, R43	Not Established
Epoxy Acrylate	55818-57-0 EINECS 500-130-2	18.8	OSHA/ PEL	Not Established
Benzophenone	119-61-9 EINECS 200-337-6	1.6	OSHA /PEL	Not Established
Hydroxypropyl Acrylate (mix)	25584-83-2	0.2-0.3	OSHA / PEL ACGIH /TLV	Not Established Not Established
Trimethylolpropane triacrylate	15625-89-5	15-20	OSHA / PEL ACGIH/ TLV	Not Established Not Established
2,2-Dimethoxy-2-Phenylactophenone	24650-42-8	2 -5	OSHA / PEL	Not Established
2-Methyl-1-4 (methylthio) phenyl-2-(4-morpholinyl)-1-propanone	71868-10-5	4 – 6	OSHA/ PEL	Not Established
oxybis(methyl-2,1-ethanediy) diacrylate	57472-68-1	15.0	OSHA/ PEL	Not Established
Hexamethylene diacrylate	13048-33-4	2.5	OSHA/ PEL	Not Established
2-propenoic acid reaction				

w/ pentaerthritol	1245638-61-1	6.0	OSHA /PEL Xn R22 Xi R38-41,-43 N R51/53	Not Established
<p>Symbols: NE: Not Established Xi: Irritant R43: May cause sensitization R51/52/53: Harmful to aquatic organisms. May cause long- term adverse effects in the aquatic environment. R36/37/38: Irritating to eyes, respiratory tract and skin. R41-43 Risk of serious damage to eyes, may cause sensitization by skin contact</p>				

III. HEALTH HAZARD INFORMATION

Effects of Overexposure
Inhalation: Avoid inhalation. Inhalation of mist or vapor may cause respiratory tract and throat irritation.
Skin Contact: Avoid contact. Contains materials that may cause moderate skin injury (reddening and swelling) and/or sensitization. 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. 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.
Ingestion: May irritate the mouth, throat, and gastrointestinal tract.

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: 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.
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 PMCC	Auto-ignition Temperature °F: No Data
Flammable Limits in Air	Lower Limit: No Data Upper Limit: No Data
<p>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. Avoid the use of a stream of water to control fires since frothing can occur. Containers exposed to heat may be cooled by water. 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.</p>	

VI. ACCIDENTAL RELEASE

<p>Steps to be taken in event of spill or release: Use protective clothing and gloves when handling material. 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 with an inert material such as sand, dirt, vermiculite. Place in a suitable container for disposal. Dispose of in accordance with state, local and Federal regulations. Do NOT allow to enter drains, sewers or waterways.</p>
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VII. HANDLING AND STORAGE

Handling and Storage: Store in containers in a cool, well-ventilated area. Avoid contact with skin, eyes and clothing. Avoid breathing vapor or mist. Keep container tightly closed. Use with adequate ventilation. Keep away from sources of ignition, heat and direct sunlight. Do not store above 140 F. Keep away from oxidizing agents, alkaline and acid materials. Wash thoroughly after handling. Consumption of food and beverages should be avoided in work areas where hydrocarbons are present.

Other Precautions: For industrial use only. 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: Chemical resistant gloves and protective clothing (apron etc.) are required. Safety showers should be provided. Wash hands thoroughly before eating or using the washroom. Smoke in smoking areas only.

Eye: Eye protection is recommended under normal use. If material is handled such that it could be splashed into eyes, 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 °F	Vapor Density (Air = 1): > 1
Relative Density (H₂O = 1): 0.95 – 1.19	Vapor Pressure (mm Hg @ 68°F): Slower than Butyl Acetate
Material Density Lbs./Gal: 8.20 – 9.91	Solubility in Water: Insoluble
% Volatiles by Weight: 1 - 3	% Solids by Weight: 97 - 99
VOC: lbs/gal: < 0.30 g/L: 35.7	Appearance/Odor: Colored paste

X. STABILITY AND REACTIVITY INFORMATION

Stability (Thermal, Light, etc.): Stable	Conditions to avoid: Avoid heat, open flame and sources of ignition. Avoid Storage >140°F (60°C) , exposure to sunlight or UV light,
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 avoid: Avoid initiators including peroxides; avoid strong oxidizing agents, copper, copper alloys, carbon steel, iron, rust, nickel, cobalt, strong bases, ultraviolet light, and/or sunlight.
Hazardous Decomposition Products: CO ₂ , CO, smoke, hydrocarbons and soot 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 follows:

Benzophenone 119-61-9

Oral LD50 1600-2895 mg/ kg (mouse)

Dermal LD50 > 3500 mg/ kg (rabbit)

Pentaerythritol Triacrylate 3524-68-3

Oral LD50 (Rat) : 1830 mg/kg

Dermal LD50 (Rabbit): > 2000 mg/kg

Hexamethylene diacrylate 13048-33-4

Oral LD50 (rat) > 50000 mg/kg

Dermal LD50 (Rabbit) > 3000 mg/kg

2-propenoic acid reaction

w/ pentaerthythritol 1245638-61-1

Oral LD50 (Rat) > 2000 mg/kg

Trimethylolpropane triacrylate 15625-89-5

Oral LD50 (Rat) 5190 uL/kg

Dermal LD50 (rabbit) 5000 mg/kg

oxybis(methyl-2,1-ethanediyl)

diacrylate 57472-68-1

Oral LD50 (rat) 4600 mg/kg

Dermal LD50 (Rabbit) > 2000 mg/kg

Pentaerythritol ,ethoxylated esters

w/ acrylic acids 51728-26-8

Oral LD50 (Rat) > 5000 mg/kg

Dermal LD50 (Rat) > 2000 mg/kg

XII. ECOLOGICAL INFORMATION

Harmful to aquatic organisms, may cause long- term adverse effects in the aquatic environment. The ecological assessment for this material is based on an evaluation of its components. As with all products and chemicals do not allow to enter waterways, lakes, drains or sewers.

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 (Sea): Not Regulated

IATA/ ICAO (Air): Not Regulated

Not classified as dangerous in the meaning of transport regulations

XV. REGULATORY INFORMATION

SARA Title III Section 313:

This material does NOT contain chemical(s) subject to the reporting requirements of the SARA Superfund

Amendments and Reauthorization Act.

SARA Section 302 - Extremely Hazardous Substances (EHS):

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:

Reactivity Hazard – YES
Immediate (acute) Health Hazard – YES
Delayed (chronic) Health Hazard – YES.

Clean Air Act - 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.

U.S. State Regulations

California Proposition 65:

This product contains a chemical(s) known by the state of California to cause developmental or reproductive harm.

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

Canadian Domestic Substances List (DSL):

All components of this product are either exempt or listed on the DSL.

XVI. OTHER INFORMATION

NFPA Hazard Rating (National Fire Protection Association)

Health: 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

Fire: 1 - Materials that must be preheated before ignition can occur.

Reactivity: 1 - Materials that in themselves are normally stable, but that can become unstable at elevated temperatures and pressures

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.

C

Safety Glasses
Gloves
Apron

