

Material Safety Data Sheet # 279.1
For Printing Inks and related Materials
OSHA Hazard Communication Standard, 29 CFR 1910.1200

Date of preparation: 3/10/2011
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 MSDS#: 279.1

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	
	Health	3
	Flammability	1
	Reactivity	1
	Personal Protection	B
Product Class: UV Screen Coating	Manufacturer's code: G019436, G017732, Various	
Trade Name: UV Screen Coating / Matte, Satin		

II. COMPOSITION INGREDIENTS

Material	CAS #	%	Exposure Limits	Units
Polyester Acrylate	Proprietary	24 – 30	Not Established	Xi: R36/37/38
Urethane acylate oligomer	Proprietary	24 - 30	Not Established	Xi: R36/37/38
Pentaerythritol tetraacrylate	4986-89-4	5 – 25	Not Established	Xi: R36/37/38
Pentaerythritol tetraacrylate	3524-68-3	3.0	Not Established	Xi: R36/37/38
hexamethylene diacrylate	13048-33-4	6 – 10	Not Established	Xi: R36/37/38
Bisphenol A diglycidyl-ether di-acrylate (BADGE_DA)	55818-57-0	11	Not Established	Xi: R36/37/38 R43
1-Methyl-1-2-ethanediyl)bis[oxymethyl-2,1ethanediyl]diacrylate	42978-66-5	40 - 56	Not Established	Xi: R36/37/38

III. HEALTH HAZARD INFORMATION

Effects of Overexposure
Inhalation: Avoid inhalation .Inhalation of mist or vapor may cause irritation of respiratory tract. Acute overexposure may result in irritation of the throat and lungs and 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. 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. 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.
Eye Contact: Avoid 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. Those known to be sensitized to acrylates should avoid all exposure to this product.
Ingestion: Do not ingest. 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. 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 until irritation subsides. Remove contact lenses if present and easy to do. Retract eyelids often. Seek immediate medical attention.
Skin: Remove contaminated clothing. Wash contaminated area thoroughly with soap and water for 15 minutes. 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 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 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: (100 C) 212 F Cleveland open cup	Auto-ignition Temperature °F: No Data
Flammable Limits in Air (% Volume)	Lower Limit: No Data Upper Limit: No Data
Extinguishing Media: Use water spray, foam, CO ₂ , or dry chemical extinguishing media.	
Special Fire Fighting Procedures: Remove all ignition sources. Do not enter fire area without proper protection. Fire fighters wear self-contained breathing apparatus and complete personal protective equipment when entering confined areas. Fight fire from a safe distance. Water may be ineffective in firefighting due to low solubility. Use water spray or fog for cooling	
Unusual Fire & Explosion Hazard: High temperatures, inhibitor depletion, accidental impurities, exposure to radiation or oxidizers and fire conditions, may cause rapid spontaneous and uncontrollable polymerization reaction generating heat / pressure, which can result in explosions and the violent rupture of storage vessels. Dense smoke may be generated while burning; carbon dioxide, carbon monoxide, and other oxides may be generated as products of combustion. Polymerization is a highly exothermic reaction and may produce sufficient heat to cause thermal decomposition.	

VI. ACCIDENTAL RELEASE

Steps to be taken in event of spill or release: Remove all ignition sources, as spilled material may polymerize. Ensure adequate ventilation. Wear protective equipment during clean- up. Stop discharge, if it can be performed safely, and contain material. Soak up with 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. Keep spill water from entering drains.
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Do NOT flush to sewer. Advise water authority if spillage has entered into water course or drainage system. Remove all ignition sources, as spilled material may polymerize. Wear protective clothing and gloves.

VII. HANDLING AND STORAGE

Handling and Storage: Wear proper protective clothing and gloves when handling. Store in 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. 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. Do not ingest. Consumption of food and beverages should be avoided in work areas. 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. DO NOT wear PVC gloves as PVC absorbs Acrylate.

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 Point °F: 212 F	Vapor Density (Air = 1): > 1
Relative Density (H₂O = 1): 1.01 - 1.18	Vapor Pressure (mm Hg @ 68°F): < 1
Material Density Lbs./Gal: 8.41 - 9.83	Solubility in Water: Insoluble
% Volatiles by Weight: < 0.4	pH: No Data
VOC: lbs/gal: < 0.04 g/L: 4.72	Appearance/Odor: Liquid / Slight Odor

X. STABILITY AND REACTIVITY INFORMATION

Stability (Thermal, Light, etc.): Stable	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. Do Not store above 140°F. Avoid exposure to ultraviolet light, and / or sunlight.
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 to avoid: Free radical initiators including peroxides, strong oxidizing agents, copper, copper alloys, carbon steel, iron, rust, nickel, cobalt, and strong bases.
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

The toxicological properties are not fully determined.

XII. ECOLOGICAL INFORMATION

Harmful to aquatic organisms. May cause long- term adverse effects in the aquatic environment. Do Not allow to enter sewers, waterways, drains etc. The ecological assessment for this material is based on an evaluation of its components.

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
IMDG /IMO:	Not Applicable
ICAO/ IATA:	Not Restricted

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.

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.

<u>Chemical</u>	<u>CAS #</u>	
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Toluene	108-88-3	Trace amount
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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.