Material Safety Data Sheet # 312

For Printing Inks and related Materials
OSHA Hazard Communication Standard, 29 CFR 1910.1200

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MSDS #: 312

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	1
Flammability	2
Reactivity	0
Personal Protection	B

Product Class: Alcohol Replacement

Manufacturer's code: S-1821

Trade Name: Diamond AR

II. HAZARDOUS INGREDIENTS

Material	CAS #	%	Exposure Limits	Units
Butyl Oxitol	111-76-2	60-100	OSHA TWA/PEL	25 ppm
			ACGIH TWA/TLV	25 ppm
			ACGIH STEL/TLV	75 ppm

The components are identified as hazardous chemicals based upon the criteria of the OSHA Hazard Communication Standard 29 CFR 1910- 1200

III. HEALTH HAZARD INFORMATION

Effects of Overexposure

Inhalation: Inhalation of excessive concentrations of vapors or mists may cause irritation of nose and throat, drowsiness, loss of coordination, headache and fatigue. No chronic health hazards are associated with the components present in this product.

Skin Contact: Avoid skin contact. Skin contact is expected to be the primary route of occupational exposure. This product may cause skin irritation. One or more components of this material are a skin irritant. Prolonged or repeated exposure to this product may cause redness and burning, drying of skin or dermatitis. This product may be absorbed through the skin. Persons with pre-existing skin disorders may be more susceptible to the affects of this material.

Eye Contact: Avoid eye contact. One or more components of this product are an eye irritant. Direct contact with the liquid or exposure to vapors or mists may cause stinging, tearing and swelling.

Ingestion: Do not ingest. (Swallowing) One or more components of this product are toxic by ingestion. Symptoms of toxicity include: abdominal pain, nausea, vomiting, drowsiness, dizziness, malaise, and loss of coordination, fatigue, possible blood disorders, and kidney and liver damage. One or more components of this product is an aspiration hazard and can enter lungs during swallowing or vomiting and cause lung inflammation and damage. May aggravate existing kidney disease.

IV. FIRST AID PROCEDURES

Emergency & First Aid Procedures

Eyes: Immediately flush eyes with large amounts of water and continue flushing for 15. Seek immediate medical attention.

Skin: If this product comes in contact with skin, immediately flush affected area with soap, water and remove contaminated clothing. Wash clothing before future use. If skin is damaged, apply dressing and seek medical attention.
Inhalation: Excessive concentrations of vapors or mists may cause irritation of nose and throat, drowsiness, loss of coordination, headache and fatigue. If any of these symptoms occur; victim should seek air free of vapors. If breathing stops, begin artificial respiration and seek immediate medical attention.
Ingestion: Do not induce vomiting. Seek immediate medical attention. If patient is fully conscious give him two glasses of water. Pre existing liver and kidney disorders may be aggravated by exposure to this product.
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 if aspiration. Gastrointestinal discomfort may develop, followed by vomiting, with risk of aspiration. Treat according to symptoms (decontamination, vital functions), no known specific antidote.

V. FIRE AND EXPLOSION DATA

Flash Point °F: 150 °F Closed Cup		**Auto-ignition Temperature °F:** No Data
Flammable Limits in Air (% Volume)	**Lower Limit:** No Data	**Upper Limit:** No Data
Extinguishing Media: Extinguish with dry chemical, CO2 or universal type foam. **Special Fire Fighting Procedures:** The use of self-contained breathing apparatus is recommended for fire fighters Water may be ineffective, but can be used to cool containers exposed to heat or flame. This material is combustible and may be ignited by heat or flame. This material will burn, but will not ignite readily. Avoid spreading burning liquid with water. **Unusual Fire & Explosion Hazard:** Dense smoke may be generated while burning; carbon dioxide, carbon monoxide, and oxides of nitrogen and sulfur may be generated as products of combustion. May produce hazardous gases during fire conditions.		

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. Absorb small spills with an inert absorbent material such as vermiculite, sand, dirt, etc. If large spill, dike area. Scrape up with trowel or scoop and place in a suitable container for disposal. Dispose in accordance with local, state and federal regulations. Clean up with a strong detergent and water. Keep all materials out of drains, sewers, or waterways.

VII. HANDLING AND STORAGE

Handling and Storage: Store in containers in a cool, well-ventilated area. Avoid prolonged contact with skin, contact with eyes, and breathing of mist or vapor. Keep containers closed when not in use. Do not store in areas with excessive hot or cold temperatures. Protect from temperatures above 105 °F / 40 °C or below 10° F / -12 °C. Protect from freezing. Wear chemical safety goggles or glasses, apron and impervious gloves when handling. Always wash hands and face with soap and water before eating, drinking, and smoking.
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: Use impervious gloves when handling. Use a chemical resistant apron if a splash hazard exists. Provide readily accessible wash stations and safety showers.
Eye: Eye protection is recommended to prevent eye contact. Eye protection should meet the specifications of ANSI Z87.1 If material is handled such that it could be splashed into eyes, wear plastic full face shield or splash-proof safety glasses or goggles. Provide readily accessible eye wash stations.

IX. PHYSICAL AND CHEMICAL DATA

Boiling Range °F: 212 °F	**Vapor Density (Air = 1):** >1
Relative Density (H_2O = 1): 0.90	**Vapor Pressure (mm Hg @ 68°F):** No Data
Material Density Lbs./Gal: 7.50	**Solubility in Water:** Soluble
% Volatile Organic Compounds (VOC) by Weight: 99.6	**Evaporation Rate:** < Water **pH:** 7
VOC: lbs/gal: 7.47**g/L:** 896 This product must be diluted before application. Please see product label for instructions. VOC as applied to image plate: At 3 oz. / gal. water: **VOC**= 20.53 g/L	**Appearance/Odor:** Clear Liquid / Glycolic

X. STABILITY AND REACTIVITY INFORMATION

Stability (Thermal, Light, etc.): Stable under normal conditions of storage and intended use.	**Conditions to avoid:** Avoid excessive heat (>105°F) and sources of ignition. Avoid storage below 40 °F (4.5 °C) and above 105 F (40°C).
Hazardous Polymerization: Will not occur id used and stored as directed.	**Materials to avoid:** Keep away from strong acids.
Hazardous Decomposition Products: CO_2, CO, and other oxides may be generated as products of combustion.	

XI. TOXICOLOGICAL INFORMATION

CARCINOGEN: This product contains no listed carcinogens according to OSHA or the National Toxicology Program (NTP), or the International Agency for Research Cancer (IARC) in concentrations of 0.1 percent or greater.

Mutagen: No Data
Teratogen: No Data
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.

	LD50 (Oral Rat)	LC50 (Species)	LD50 (Species)
Butyl Oxitol	1520 mg/kg	450 ppm / 4 hr (Rat)	Not Available

XII. ECOLOGICAL INFORMATION

Information pertaining to the ecological fate 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

Ecotoxicity Data: No information available

Chemical Fate Data: No information available.

Do not allow to enter waterways, drains, sewers or lakes.

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.

Since emptied containers may retain product residues, all hazard precautions given in this data sheet should be observed

XIV. TRANSPORT INFORMATION

Flammability Classification:	Combustible Liquid
OSHA:	Class III A
DOT Proper Shipping Name (ground):	Non Hazardous, liquid
Class:	Not applicable
DOT Guide:	ERG Guide 111
UN ID:	None, Not applicable
IMDG Proper Shipping Name (Sea)	Non Hazardous, liquid
Class:	Not applicable
UN ID:	Not applicable
Packing Group:	Not applicable
ICAO/ IATA Shipping Name (air):	Non Hazardous, liquid
Class:	Not applicable
UN ID:	Not applicable
Packing Group:	Not applicable
TDG Proper Ship Name (Canada):	Non Hazardous, liquid
Class (Ground):	Not applicable
UN ID:	Not applicable
Packing Group:	Not applicable

XV. REGULATORY INFORMATION

"Note" Ingredient information listed in this section is provided for reporting requirements as directed by USEPA, state and local regulation. If ingredients are listed in Section 2 but not in this section then the concentration is below "de minimus" (less than 0.1%).

US Federal Regulations

313 = SARA Title III Section 313(40 CFR 372- Toxic Release Inventory)
355= SARA Section Title III Section 302 (40 CFR 355- Extremely Hazardous Substance)
302= SARA Section Title III Section 304 (40 CFR 302- Hazardous Substance List)
CWA= Clean Water Act Priority Pollutants List
CAA= Clean Air Act 1990Hazardous Air Contaminants
HAP= Clean Air Act, Hazardous Air Pollutants (HAPs)

Chemicals	**CAS#**	**313**	**355**	**302**	**CWA**	**CAA**	**HAP**
Butyl Oxitol	111-76-2	Yes	No	Yes	No	Yes	No

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

Chemicals	CAS#	PA	NJ	MN	MI	MA	FL
Butyl Oxitol	111-76-2	Yes	Yes	Yes	No	Yes	Yes

FL= Florida Hazardous Substance List
MI- Michigan Critical Materials List
NJ= New Jersey Right- To- Know List
MA= Massachusetts Right- To –Know List
MN= Minnesota Hazardous Substance List
PA= Pennsylvania Right-To-Know List

CERCLA Reportable Quantities
There are no components present which could require reporting under CERCLA 40 CFR 302.4

Coalition of Northeast Governors (CONEG) Legislation:
This product is certified to be in full compliance with CONEG Model Toxics Legislation for packaging and packaging components.

California Proposition 65:
This product does not contain any chemicals known by the state of California to cause cancer and/or reproductive harm. Moreover, Gans Ink and Supply Co., Inc. does not routinely analyze its products for impurities which may be such chemicals.

Canadian WHMIS Classification

Components present listed in the WHMIS hazardous ingredient disclosure list.

Chemical	CAS#
Butyl Oxitol	111-76-2

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