

**I. PRODUCT IDENTIFICATION**

Manufacturer: Gans Ink and Supply Co, Inc. Address: 1441 Boyd Street Los Angeles, CA 90033  Emergency phone: (323) 264-2200	<b>HMIS HAZARD IDENTIFICATION</b>	
	Health	2
	Flammability	3
	Reactivity	0
<b>Product Class:</b> Lithographic Solvent Blend	<b>Manufacturer's code:</b> S-1215	
<b>Trade Name:</b> Blanket Rejuvenator		

**II. HAZARDOUS INGREDIENTS**

Material	CAS #	%	Exposure Limits
Ethylene Glycol Monoethyl Ether Acetate	111-15-9	91.0 - 95.0	See below
Ethylene Glycol	107-21-1	5.0	See below
Morpholine	110-91-8	1.0 - 3.5	See below
<b>Exposure Guidelines</b>			
Ethylene Glycol Monoethyl Ether Acetate, CAS # 111-15-9			
OSHA PEL, 100 ppm - TWA (skin)			
OSHA VPEL, 100 ppm - TWA (skin)			
ACGIH TLV, 5 ppm - TWA (skin)			
Other Limit, 2 ppm - TWA			
Other Limit, 5 ppm - STEL 15 minutes			
Ethylene Glycol, CAS # 107-21-1			
OSHA VPEL, 50 ppm - Ceiling			
ACGIH TLV, 100 mg/m <sup>3</sup> - Ceiling as an aerosol			
Morpholine, CAS # 110-91-8			
OSHA PEL, 20 ppm - TWA (skin)			
OSHA VPEL, 20 ppm - TWA (skin)			
OSHA VPEL, 30 ppm - TWA (skin)			
ACGIH TLV, 20 ppm - TWA (skin)			
ACGIH TLV, 30 ppm - STEL (skin)			

**III. PHYSICAL DATA**

<b>Boiling Range °F:</b> 259-266	<b>Vapor Density (Air = 1):</b> 1.0
<b>Relative Density (H<sub>2</sub>O = 1):</b> 0.98	<b>Vapor Pressure (mm Hg @ 70°F):</b> 7.0
<b>Material Density Lbs./Gal:</b> 8.18	<b>Solubility in Water:</b> Soluble
<b>% Volatiles by Weight:</b> 100	
<b>VOC Lbs./Gal:</b> 8.18 g/L: 980	<b>Appearance/Odor:</b> Liquid

**IV. FIRE AND EXPLOSION DATA**

<b>Flash Point °F 90 – 99 TCC</b>	<b>Auto-ignition Temperature °F:</b> N/E	
<b>Flammable Limits in Air</b>	<b>Lower Limit:</b> N/E	<b>Upper Limit:</b> N/E
<b>Extinguishing Media:</b> Use alcohol foam, carbon dioxide, dry chemical. <b>Special Fire Fighting Procedures:</b> Wear self-contained breathing apparatus with a full face piece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS. <b>Unusual Fire &amp; Explosion Hazard:</b> Vapors are heavier than air and may travel along the ground, or may be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors, static discharge, or other ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. <b>Incompatibility:</b> Avoid contact with: halogenated hydrocarbons, strong organic acids and strong oxidizing agents.		

## V. HEALTH HAZARD INFORMATION

<b>Effects of Overexposure</b>	
<b>Ingestion:</b> Swallowing this material may be harmful or fatal. Symptoms may include severe stomach and intestinal irritation (nausea, vomiting and diarrhea) abdominal pain, and vomiting of blood. Swallowing this material may cause burns and destroy tissue in the mouth, throat, and digestive tract. Low blood pressure and shock may occur as a result severe tissue injury. Liver, kidney and brain damage in humans has resulted from swallowing lethal or near-lethal amounts of ethylene glycol.	
<b>Emergency &amp; First Aid Procedures</b>	
<b>Eyes:</b> If material gets into eyes, immediately flush eyes gently with water for at least 15 minutes while holding eyelids apart. If symptoms develop as a result of vapor exposure, immediately move individual away from exposure and into fresh air before flushing as recommended above. Seek immediate medical attention.	
<b>Skin:</b> Immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. Seek immediate medical attention. Wash clothing before reuse and discard contaminated shoes.	
<b>Inhalation:</b> If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.	
<b>Ingestion:</b> Seek immediate medical attention. Do not induce vomiting. Vomiting will cause further damage to the mouth and throat. If individual is conscious and alert, immediately rinse mouth with water and give milk or water to drink. If possible do not leave individual unattended.	
<b>Notes to Physician:</b> This product contains ethylene glycol. Ethanol decreases the metabolism of ethylene glycol to toxic metabolites. Ethanol should be administered as soon as possible in cases of severe poisoning since the elimination half-life of ethylene glycol is 3 hours. If medical care will be delayed several hours, give the patient three to four 1-ounce oral "shots" of 86-proof or higher whiskey before or during transport to the hospital. Fomepizole (4-methylpyrazole) is an effective antagonist of alcohol dehydrogenase, and as such, may be used as an antidote in the treatment of ethylene glycol poisoning. Hemodialysis effectively removes ethylene glycol and its metabolites from the body. Effects of acute ethylene glycol poisoning appear in three fairly distinct stages. The initial stage occurs shortly after exposure, lasts 6-12 hours, and is characterized by central nervous system effects (transient exhilaration, nausea, vomiting, and in severe cases, coma, convulsions and possible death). The second stage lasts from 12-36 hours after exposure and is initiated by the onset of coma. This phase is characterized by tachypnea, tachycardia, mild hypotension, cyanosis, and in severe cases, pulmonary edema, broncopneumonia, cardiac enlargement and congestive failure. The final stage occurs 24-72 hours post – exposure and is characterized by renal failure, ranging from a mild increase in blood urea nitrogen and creatinine followed by recovery, to complete anuria with acute tubular necrosis that can lead to death. Oxaluria is found in most cases. The most significant laboratory finding in ethylene glycol intoxication is severe metabolic acidosis. Ingestion or other significant exposure to this material (or a component) may cause metabolic acidosis. Pulmonary edema may be delayed. Pre-existing disorders of the following organs (or organ systems) may be aggravated by exposure to this material : respiratory tract, skin, lung (for example, asthma-like conditions), liver, kidney, central nervous system, blood-forming system, male reproductive system, immune system, eye, female reproductive system. Exposure to this may aggravate any pre-existing condition sensitive to a decrease in available oxygen, such as chronic lung disease, coronary artery disease or anemias.	

## VI. REACTIVITY INFORMATION

<b>Stability (Thermal, Light, etc.):</b> Stable.	<b>Conditions to avoid:</b> Storage >140°F, exposure to light, loss of dissolved air, loss of polymerization inhibitor, contamination with incompatible materials.
<b>Hazardous Polymerization:</b> Product will not undergo hazardous polymerization.	
<b>Hazardous Decomposition Products:</b> May form: carbon dioxide and carbon monoxide, formaldehyde, nitrogen compounds.	

## VII. ENVIRONMENTAL PRECAUTIONS

<b>Steps to be taken in event of spill or release:</b> <b>Small Spill</b> Absorb liquid on vermiculite, floor absorbent, or other absorbent material and transfer to hood.
<b>Large Spill:</b> Eliminate all ignition sources, (flares, flames including pilot lights, electric sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal. Prevent run-off to sewers, streams, or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred
<b>Waste Disposal Method:</b> Dispose of in accordance with all applicable local, state and federal regulations.

### VIII. SPECIAL PROTECTION INFORMATION

**Ventilation Requirements:** Provide sufficient mechanical (general and /or local exhaust) ventilation to maintain exposure below TLV(s).

#### Personal Protective Equipment

**Respirator:** If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

**Skin:** Wear resistant gloves (consult your safety equipment supplier). To prevent skin contact, wear impervious clothing and boots.

**Eye:** Chemical splash goggles and face shield (8" min.) in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. (Consult your industrial hygienist.)

### IX. SPECIAL PRECAUTIONS

**Handling and Storage:** Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/ or solid), all hazard precautions given in the data sheet must be observed. All five-gallon pails and larger metal containers, including tank trucks, should be grounded and/or bonded when material is transferred. Do not use sodium nitrate or other nitrosating agents in formulations containing this product. Suspected cancer-causing nitrosamines could be formed. Warning. Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions.

**Other Precautions:** For industrial use only. Do not ingest. Avoid prolonged contact with skin, contact with eyes, and breathing of mist or vapor.

### X. SHIPPING DATA

**Flammability Classification: Flammable Liquid, Corrosive, N.O.S., 3, UN2924, III**

#### Container / Mode

55 Gal Drum / Truck Package

**DOT:** 49 CFR 172.101

#### NOS Component :

Morpholine

**RQ (Reportable Quantity) - 49 CFR 172.101**

Not applicable

#### Other Transportation Information

The Transport Information may vary with the container and mode of shipment

### XI. ADDITIONAL NOTES

#### Toxicological Information

##### Chronic / Carcinogenicity

One study with Morpholine in laboratory animals produced cancer, while others have not. The tumors in the one study may have resulted from the exposure N-nitrosomorpholine, an animal carcinogen. N-nitrosomorpholine can occur as a contaminant in Morpholine or as a result of the interaction of Morpholine with nitrite of unknown origin.

There is no evidence that Morpholine causes cancer in humans.

##### Ecological Information

No Data

**Regulatory Information****US Federal Regulations****TSCA (Toxic Substances Control Act) Status:**

TSCA (United States) The Intentional ingredients of this product are listed.

**CERCLA RQ (40 CFR 302.4a) :**

Component	RQ (lbs.)
Ethylene Glycol	5000

**SARA 302 Components (40 CFR 355 Appendix A) :**

None

**Section 311 / 312 Hazard Class (40 CFR 370.2):**

immediate (x) Delayed (x) Fire (x) Reactive ( ) Sudden Release of Pressure ( )

**SARA 313 Components (40 CFR 372.65):**

Section 313 components(s)	CAS Number	%
Ethylene Glycol Monoethyl Ether Acetate	111-15-9	93.3
Ethylene Glycol	107-21-1	5.1

**OSHA Process Safety Management (29 CFR 1910):**

None listed

**EPA Accidental Release Prevention (40 CFR 68):**

None listed

**International Regulations****Inventory Status:**

N/D

**State and Local Regulations****California Proposition 65:**

The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the state of California to cause cancer :

1,4-Dioxane	123-91-1
Ethylene Oxide	75-21-8
Acetaldehyde	75-07-0

The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance (s) known to the State of California to cause reproductive harm.

Ethylene Glycol Monoethyl Ether Acetate	111-15-9
Ethylene Oxide	75-21-8

**New Jersey RTK Label Information:**

2-Ethoxyethylacetate	111-15-9
Ethylene Glycol	107-21-1
Morpholine	110-91-8

**Pennsylvania RTK Label Information:**

Ethanol, 2- Ethoxy-Acetate	111-15-9
1,2-Ethanediol	107-21-1
Morpholine	110-91-8

## XII. LEGEND

ACGIH: American Conference of Governmental Industrial Hygienists.

ASTM: American Society for Testing and Materials

CAS #: Chemical Abstract Service Registry Number.

DOT: Department of Transportation.

IARC: International Agency for Research on Cancer.

Group 1: Carcinogenic to humans.

Group 2A: Probable carcinogenic to humans.

Group 2B: Possible carcinogenic to humans.

Group 3: Unclassified as a carcinogen to humans

N/A: Not Applicable.

N/D: Not Determined

N/E: Not Established.

NTP: National Toxicology Program.

NIOSH: National Institute for Occupational Safety and Health.

OSHA: Occupational Safety & Health Administration.

PEL: Permissible Exposure Limit.

STEL: Short Term Exposure Limit (15 minute Time Weighted Average).

TLV: Threshold Limit Value.

VOC: Volatile Organic Compounds.

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. make 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. assume 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.