Safety Data Sheet

SECTION 1: IDENTIFICATION

SDS Number: S-1823, version 8/17/2018

(a) Product identifier

Gans Description:  Gans Diamond LC-Sub

(b) Other means of identification
General description:  Lithographic press cleaning solvent

(c) Recommended use
Product Use:  Industrial use only
Restrictions on use:  Not for residential use.

(d) Supplier’s details
Manufacturer:  Gans Ink and Supply Co, Inc.
Address:  1441 Boyd Street
Los Angeles, CA 90033
Contact Person:  Marco Ramos
Telephone:  323-264-2200 x139
Email:  MSDS@gansink.com

(e) Emergency telephone numbers:
Chemical spill or physical hazard:  Contact the Local Emergency Response Agency 9-1-1, or the Local Fire Department
Ingestion or health hazard:  Contact the National Capital Poison Center, Poison Control: 800 222-1222; Poison.org

SECTION 2: HAZARD(S) IDENTIFICATION

(a) Classification
This mixture is hazardous according to OSHA Hazard Communication Standard (29 CFR 1910.1200).
Physical hazards:  Not classified as hazardous
Health hazards:
  o  Acute Toxicity, Oral – Category 4
  o  Skin Irritation – Category 2
  o  Eye Damage/Irritation – Category 1

(b) Label elements
Signal Word:  Danger
Hazard Statements: Harmful if swallowed; Causes skin irritation; Causes serious eye damage;

Precautionary Statements:
Prevention: Wear protective gloves. Wear eye protection/face protection. Do not eat, drink or smoke when using this product. Wash contaminated areas thoroughly after handling.

Response:
IF SWALLOWED: Call a poison center/doctor if you feel unwell. Rinse mouth.
IF ON SKIN OR HAIR: Wash with plenty of water and mild soap. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor.

Disposal: Dispose of contents/container to disposal recycling center. Waste management should be in full compliance with federal, state and local laws.

Hazard Pictograms:

(c) Hazards not otherwise classified
None known

(d) Ingredients of unknown acute toxicity
None known

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture: Mixture
TS = Trade Secret (as specified by substance manufacturer)

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS # (TS = trade secret)</th>
<th>Conc. min. (wt. %)</th>
<th>Conc. max. (wt. %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethane-1,2-diol</td>
<td>107-21-1</td>
<td>10.0%</td>
<td>30.0%</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>111-76-2</td>
<td>10.0%</td>
<td>30.0%</td>
</tr>
<tr>
<td>1-butoxypropan-2-ol</td>
<td>5131-66-8</td>
<td>10.0%</td>
<td>30.0%</td>
</tr>
<tr>
<td>2-ethylhexane-1,3-diol</td>
<td>94-96-2</td>
<td>1.0%</td>
<td>5.0%</td>
</tr>
</tbody>
</table>

SECTION 4: FIRST AID MEASURES

(a) Description of first aid measures:
Ingestion: Call a poison center/doctor if you feel unwell. Rinse mouth.
Inhalation: If breathing is difficult, remove person to fresh air and keep at rest in a position comfortable for breathing.
Skin contact: Wash with plenty of water and mild soap. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.
Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a poison center/doctor.

(b) Most important symptoms and effects, both acute and delayed:
Ingestion: Harmful if swallowed;
Inhalation: Data not available. Not classified as hazardous
Skin contact: Causes skin irritation
Eye contact: Causes serious eye damage;

(c) Indication of any immediate medical attention and special treatment needed:
Symptoms such as burning, pain, or irritation to eyes, or skin may indicate exposure and the need for first aid.

SECTION 5: FIRE – FIGHTING MEASURES

(a) Extinguishing Media:
Suitable extinguishing media: Use CO₂, dry chemical, fire-fighting foam, or water fog extinguishing media
Unsuitable extinguishing media: Do not use water stream. Water stream or spray is OK to cool unopened containers only.

(b) Special hazards arising from the substance or mixture: Direct water stream may spread or disperse burning liquid.

(c) Special protective equipment and precautions for fire-fighters: Wear NIOSH approved self-contained respiratory protective device, and fully protective fire-fighting suit.

SECTION 6: ACCIDENTAL RELEASE MEASURES

(a.i) Personal precautions:
Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eye or clothing.

(a.ii) Protective equipment: See Section 8

(a.iii) Emergency procedures: Follow your company emergency response procedure.

(b) Methods for containment and cleaning up:
Dike and contain spill. For large spills remove by mechanical means and place in containers. Absorb residue or small spills with absorbent material and remove to non-leaking containers for disposal.

SECTION 7: HANDLING AND STORAGE

(a) Precautions for safe handling:
Wear protective gloves. Wear eye protection/face protection. Do not eat, drink or smoke when using this product. Wash contaminated areas thoroughly after handling.

(b) Conditions for safe storage:
Store in original container, with original labels. Keep container tightly closed.

Incompatibilities: Keep away from strong oxidizing agents, strong acids and bases.
SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

(a) Permissible exposure limits

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS #</th>
<th>ppm</th>
<th>mg/m³</th>
<th>8-hour TWA (ST)</th>
<th>STEL (C) Ceiling</th>
<th>Up to 10-hour TWA (ST)</th>
<th>STEL (C) Ceiling</th>
<th>8-hour TWA (ST)</th>
<th>STEL (C) Ceiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>111-76-2</td>
<td>50</td>
<td>240</td>
<td>20 ppm</td>
<td>5 ppm</td>
<td>20 ppm</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

No hazardous ingredients in this mixture appear on OSHA Annotated Tables Z-1, Z-2, or Z-3.

(b) Appropriate engineering controls:

Ventilation requirements: Handle only in a place equipped with local exhaust (or other appropriate exhaust). Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

General protective measures: Ensure that eye flushing /eye wash stations, and hand washing areas are accessible.

(c) Personal protective equipment:

Inhalation: Avoid breathing mist, vapors, spray. Where mist or aerosol is present, an organic vapor full facepiece respirator is recommended (to protect eyes and face as well).

Skin Contact: Wear protective gloves. Take off contaminated clothing and wash it before reuse. Ansell Chemical Resistance Guide, 8th Edition recommends the following glove materials for a general mix of polyols: Sol-Vex, nitrile; 29-Series, unsupported neoprene; PVA, supported polyvinyl alcohol; Chemi-Pro, neoprene/natural rubber blend;


Ingestion: Avoid eating, drinking, or smoking in work area and wash hands after handling this product.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

(a) Appearance (physical state, color): Liquid (aqueous solution), clear
(b) Odor: sweet
(c) Odor threshold: Data not available
(d) pH: 7
(e) Melting point/ freezing point; Data not available
(f) Initial Boiling point / Range: >200.1 °F (93.4 °C)
(g) Flashpoint: >200.1 °F (93.4 °C)
(h) Evaporation Rate: Data not available
(i) Flammability (solid/gas): Data not available
(j) Upper/ lower flammability explosion limits: Data not available
(k) Vapor Pressure (mm Hg @ 68°F): Data not available
(l) Vapor Density (Air = 1): Data not available
(m) Relative Density (H₂O = 1): 1.01
(n) Solubility: Miscible in water
(o) Partition coefficient n-Octanol/ Water: Data not available
(p) Auto-ignition temperature: Data not available
(q) Decomposition temperature: Data not available
(r) Viscosity: < 14 mm²/s @ 104 °F (40 °C)

**Other properties**

VOC % (wt.): 66.8
VOC: 5.60 lbs./gal; 674 g/L

**SECTION 10: STABILITY AND REACTIVITY INFORMATION**

(a) Reactivity: Not reactive under normal storage conditions. See Section 7.
(b) Chemical stability: Mixture is chemically stable under normal storage and handling conditions, and under normal temperatures and pressures.
(c) Possibility of hazardous reactions: No data available
(d) Conditions to avoid: Keep away from open flames, sparks, hot surfaces and sources of ignition.
(e) Incompatible materials: Strong oxidizers, acids, and bases.
(f) Hazardous decomposition product: Thermal decomposition may yield carbon dioxide and/or carbon monoxide.

**SECTION 11: TOXICOLOGICAL INFORMATION**

(a) Likely routes of exposure: Skin contact, eye contact, inhalation, and ingestion.

(b) Symptoms related to physical, chemical, and toxicological characteristics:

Skin contact: Causes skin irritation;
Eye contact: Causes serious eye irritation.
Inhalation: Data not available. Not classified as hazardous
Ingestion: Harmful if swallowed;

(c) Delayed and immediate effects, and chronic effects from long-term exposure

Data not available.

(d) Numerical measures of toxicity, acute:

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS # (TS= trade secret)</th>
<th>Oral</th>
<th>Inhalation</th>
<th>Dermal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethane-1,2-diol</td>
<td>107-21-1</td>
<td>LD50 7712 mg/kg bw (rat)</td>
<td>LC50 (6 h) 2.5 mg/L air (rat)</td>
<td>LD50 3500 mg/kg bw (mouse)</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>111-76-2</td>
<td>LD50 1414 mg/kg bw (guinea pig)</td>
<td>LC50 (3 h) 1.44 - 4.25 mg/L air (rat)</td>
<td>LD50 2000 mg/kg bw (rat)</td>
</tr>
<tr>
<td>1-butoxypropan-2-ol</td>
<td>5131-66-8</td>
<td>LD50 2000 - 5500 mg/kg bw (rat)</td>
<td>LC0 (4 h) 651 ppm (rat)</td>
<td>LD50 2000 mg/kg bw (rat)</td>
</tr>
<tr>
<td>2-ethylhexane-1,3-diol</td>
<td>94-96-2</td>
<td>LD50 4636 - 9281 mg/kg bw (rat)</td>
<td>Data not available</td>
<td>LD50 8 960 – 10,251 mg/kg bw (rabbit)</td>
</tr>
</tbody>
</table>

(e) Carcinogens information:

IARC; Group 1 (Carcinogenic to humans), Group 2A (Probably carcinogenic to humans), or Group 2B (Possibly carcinogenic to humans) by IARC:
This mixture does not contain listed materials.

NTP; 13th Report on Carcinogens: This mixture does not contain listed materials.

OSHA: This mixture does not contain listed materials.
SECTION 12: ECOLOGICAL INFORMATION

(a) **Ecotoxicity**

Classification of mixture: Not classified as hazardous

(b) **Persistence and degradability:** No data available

(c) **Bioaccumulative potential:** No data available.

(d) **Mobility in soil:** No data available

(e) **Other adverse effects:** No known adverse effects

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of contents/container in accordance with local/regional/national regulations. The hazard and precautionary statements displayed on the label also apply to any residues left in the container.

SECTION 14: TRANSPORT INFORMATION

US DOT (Ground): Not regulated as a dangerous good

(a) UN number: NA

(b) **UN Proper Shipping Name:** Not regulated as a dangerous good

(c) **Transport hazard class:** NA

(d) **Packing Group:** Not regulated as a dangerous good

(e) **Environmental hazards:** Not regulated as a dangerous good

(f) **Transport in bulk**

   MARPOL 73/78: No data available

   IBC: No data available.

(g) **Special Precautions:** None known

SECTION 15: REGULATORY INFORMATION

U.S. Federal Regulations

**TSCA Section 8(b) Inventory Status:** All ingredients in this mixture are listed on the TSCA Chemical Inventory, or are not required to be listed.

**EPCRA, Section 302 – Extremely hazardous substances:** This mixture does not contain listed materials.

**CERCLA Hazardous Substances:**

   - Ethane-1,2-diol 107-21-1: RQ = 5000

**EPCRA Section 313 Toxic Chemicals:**

   - Ethane-1,2-diol 107-21-1

**CAA 112(r) Regulated Chemicals for Accidental Release Prevention:** This mixture does not contain listed materials.

**Hazardous Air Pollutants (HAP):**

   - Ethane-1,2-diol 107-21-1
   - 2-butoxyethanol 111-76-2 (glycol ether)

U.S. State Regulations

**California Proposition 65:** This mixture does not contain listed materials.
New Jersey Right to Know
  o Ethane-1,2-diol 107-21-1
  o 2-butoxyethanol 111-76-2

Oregon DEQ List of Air Toxic Contaminants:
  o Ethane-1,2-diol 107-21-1
  o 2-butoxyethanol 111-76-2

Pennsylvania Right to Know
  o Ethane-1,2-diol 107-21-1
  o 2-butoxyethanol 111-76-2

NFPA 704

<table>
<thead>
<tr>
<th></th>
<th>HMIS III</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEALTH</td>
<td>2</td>
</tr>
<tr>
<td>FLAMMABILITY</td>
<td>1</td>
</tr>
<tr>
<td>PHYSICAL HAZARD</td>
<td>1</td>
</tr>
</tbody>
</table>

Canadian Environmental Protection Act:
WHMIS Classification: No data available

European Chemical Agency (ECHA)
Candidate List of Substances of Very High Concern (SoVHC), including 27 June 2018 update: This mixture does not contain listed materials.

SECTION 16: 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.