Safety Data Sheet

SECTION 1: IDENTIFICATION

SDS Number: S-1857, version 7/16/2018

(a) Product identifier
Gans Item ID: S-1857

Gans Description: Gans Permanent Blanket SAVR

(b) Other means of identification
General description: Lithographic pressroom 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: Flammable Liquid -- Category 3

Health hazards:
  o Acute Toxicity, Oral – Category 4
  o Acute Toxicity, Dermal – Category 4
  o Acute Toxicity, Inhalation – Category 4
  o Skin Irritation – Category 2
  o Germ Cell Mutagenicity – Category 1B
  o Carcinogenicity – Category 1B
o Toxic to Reproduction – Category 2
o Specific Target Organ Toxicity, Single Exposure – Category 1
o Specific Target Organ Toxicity, Repeat Exposure – Category 2

(b) Label elements

Signal Word: Danger

Hazard Statements:
Flammable liquid and vapor;
Harmful if swallowed; Harmful in contact with skin; Harmful if inhaled; Causes skin irritation; May cause genetic defects; May cause cancer; Suspected of damaging fertility or the unborn child; Causes damage to organs <optic nerve>; May cause damage to organs <neurological> through prolonged or repeated exposure <<inhalation>>

Precautionary Statements:

Prevention:
Keep away from heat/sparks/open flames/hot surfaces.– No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical/ventilating/ lighting/ equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe fume/mist/ vapors/spray. Use only outdoors or in a well-ventilated area. Wash contaminated areas thoroughly after handling. Do not eat, drink or smoke when using this product.

Response:
IN CASE OF FIRE: Use CO₂, dry chemical, or fire-fighting foam to extinguish
IF SWALLOWED: Call a poison center/doctor if you feel unwell. Rinse mouth. If exposed or concerned: Get medical advice/attention.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. If exposed or concerned: Get medical advice/attention.
IF ON SKIN OR HAIR: Wash with plenty of water and mild soap. Rinse skin with water/shower. Call a poison center/doctor if you feel unwell. Take off immediately all contaminated clothing and wash it before reuse.

Storage: Store locked up.

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>Dichloromethane</td>
<td>75-09-2</td>
<td>65.0%</td>
<td>85.0%</td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>8.0%</td>
<td>10.0%</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>7.0%</td>
<td>9.0%</td>
</tr>
<tr>
<td>Ethane-1,2-diol</td>
<td>107-21-1</td>
<td>3.0%</td>
<td>5.0%</td>
</tr>
<tr>
<td>Methyloxirane</td>
<td>75-56-9</td>
<td>1.0%</td>
<td>2.0%</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. If exposed or concerned: Get medical advice/attention.

Inhalation: Remove person to fresh air and keep comfortable for breathing. If exposed or concerned: Get medical advice/attention.

Skin contact: Wash with plenty of water and mild soap. Rinse skin with water/shower. Call a poison center/doctor if you feel unwell. Take off immediately all 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.

(b) Most important symptoms and effects, both acute and delayed:
Ingestion: Harmful if swallowed; May cause genetic defects; May cause cancer; Suspected of damaging fertility or the unborn child; Inhalation: Harmful if inhaled; May cause damage to organs <neurological> through prolonged or repeated exposure <<inhalation>>
Skin contact: Harmful in contact with skin; Causes skin irritation;
Eye contact: Causes damage to organs <optic nerve>;

(c) Indication of any immediate medical attention and special treatment needed:
Symptoms such as loss of breath, and burning, pain, or irritation to lungs, 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, or fire-fighting foam to extinguish
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: Combustion may produce hazardous gases.

(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 breathing vapor. Avoid contact with skin, eye or clothing. Use explosion proof equipment.

(a.ii) Protective equipment: See Section 8

(a.iii) Emergency procedures: If dangerous conditions exist, contact emergency response personnel, follow emergency procedures, and contact emergency response authorities.

Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Follow your company’s emergency spill 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:
Keep away from heat/sparks/open flames/hot surfaces.– No smoking. Use explosion-proof electrical/ventilating/ lighting/ equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe fume/mist/ vapors/spray. Use only outdoors or in a well-ventilated area. Wash contaminated areas thoroughly after handling. Do not eat, drink or smoke when using this product.

(b) Conditions for safe storage:
Store locked up. Keep away from heat/sparks/open flames/hot surfaces.– No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical/ventilating/ lighting/ equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

Incompatibilities: Alkali metals, aluminum, strong oxidizing agents, bases, amines, magnesium, strong acids and strong bases, vinyl compounds.
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>Up to 10-hour TWA (ST)</th>
<th>8-hour STEL (C) Ceiling</th>
<th>2015 TVL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dichloromethane</td>
<td>75-09-2</td>
<td>Data not available</td>
<td>Data not available</td>
<td>25 ppm (ST) 125 ppm</td>
<td>Up to 10-hour TWA (ST)</td>
<td>50 ppm</td>
<td></td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>200</td>
<td>260</td>
<td>200 ppm (ST) 250 ppm (C) 1000 ppm</td>
<td>200 ppm (ST) 250 ppm</td>
<td>200 ppm (ST) 250 ppm</td>
<td></td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>(C) 300 ppm</td>
<td>Data not available</td>
<td>10 ppm (ST) 150 ppm (C) 500 ppm</td>
<td>100 ppm (ST) 150 ppm</td>
<td>20 ppm</td>
<td></td>
</tr>
<tr>
<td>Ethane-1,2-diol</td>
<td>107-21-1</td>
<td>Data not available</td>
<td>Data not available</td>
<td>Data not available</td>
<td>Data not available</td>
<td>Data not available</td>
<td></td>
</tr>
<tr>
<td>Methylxirane</td>
<td>75-56-9</td>
<td>100</td>
<td>240</td>
<td>2 ppm</td>
<td></td>
<td>2 ppm</td>
<td></td>
</tr>
</tbody>
</table>

(b) Appropriate engineering controls:

Ventilation requirements: Do not breathe fume/mist/vapors/spray. Use only outdoors or in a well-ventilated area. 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: Do not breathe mist, vapors, spray. Use only outdoors or in a well-ventilated area. 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, and protective clothing. Contaminated work clothing must not be allowed out of the workplace. Ansell Chemical Resistance Guide, 8th Edition recommends the following glove materials for Dichloromethane CAS 75-09-2 (largest portion of this mixture): PVA, supported polyvinyl alcohol


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): Gel, green color
(b) Odor: Chlorinated hydrocarbon
(c) Odor threshold: Data not available
(d) pH: NA
(e) Melting point/ freezing point; Data not available
(f) Initial Boiling point / Range: 104-388 °F (40-198 °C)
(g) Flashpoint: 104 °F (40 °C) TCC
(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): 1.18
(n) Solubility: < 1%
(o) Partition coefficient n- Octanol/ Water: Data not available
(p) Auto-ignition temperature: Data not available
(q) Decomposition temperature: Data not available
(r) Viscosity: Data not available

Other properties
VOC % (wt.): 21
VOC: 2.06 lbs./gal; 247 g/L

SECTION 10: STABILITY AND REACTIVITY INFORMATION

(a) Reactivity: Not reactive under normal storage conditions. See Section 7. Do not expose to incompatible materials.
(b) Chemical stability: Mixture is chemically stable under normal storage and handling conditions, and under normal temperatures and pressures.
(c) Possibility of hazardous reactions: Do not expose to incompatible materials.
(d) Conditions to avoid: Keep away from open flames, sparks, hot surfaces and incompatible materials.
(e) Incompatible materials: Alkali metals, aluminum, strong oxidizing agents, bases, amines, magnesium, strong acids and strong bases, vinyl compounds.
(f) Hazardous decomposition product: Data not available

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: Harmful in contact with skin; Causes skin irritation;
Eye contact: Causes damage to organs <optic nerve>;
Inhalation: Harmful if inhaled; May cause damage to organs <neurological> through prolonged or repeated exposure <<inhalation>>
Ingestion: Harmful if swallowed; May cause genetic defects; May cause cancer; Suspected of damaging fertility or the unborn child;

(c) Delayed and immediate effects, and chronic effects from long-term exposure
May cause damage to organs <neurological> through prolonged or repeated exposure <<inhalation>>; May cause genetic defects; May cause cancer; Suspected of damaging fertility or the unborn child;
(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>Dichloromethane</td>
<td>75-09-2</td>
<td>LD50 2000 mg/kg bw (rat)</td>
<td>LC50 (7 h) 49 mg/L air (mouse)</td>
<td>LD50 2000 mg/kg bw (rat)</td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>LD50 1187 - 2769 mg/kg bw (rat)</td>
<td>LC50 (4 h) 115.9 - 130.7 mg/L air (rat)</td>
<td></td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>LD50 5580 mg/kg bw (rat)</td>
<td>LC50 (4 h) 25.7 - 30 mg/L air (rat)</td>
<td>LD50 5000 mg/kg bw (rabbit)</td>
</tr>
<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>Methyloxirane</td>
<td>75-56-9</td>
<td>LD50 382 - 587 mg/kg bw (rat)</td>
<td>LC50 (4 h) 4197 ppm (rat)</td>
<td>LD50 950 - 1250 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:
- Dichloromethane 75-09-2, Group 2A
- Methyloxirane 75-56-9, Group 2B

NTP; 13th Report on Carcinogens:
- Dichloromethane 75-09-2
- Methyloxirane 75-56-9

OSHA:
- Dichloromethane 75-09-2

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.

RCRA Codes
- Dichloromethane 75-09-2, U080
- Methanol 67-56-1, U154
- Toluene 108-88-3, U220

SECTION 14: TRANSPORT INFORMATION

US DOT (Ground):
(a) UN number: UN1593
(b) UN Proper Shipping Name: Dichloromethane
(c) Transport hazard class: Poisonous Materials 6.1
(d) Packing Group: PG III
(e) Environmental hazards: No data available
(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 of this mixture are listed on the TSCA Inventory

EPCRA, Section 302 – Extremely hazardous substances:
   1. Methylloxirane 75-56-9, TPQ = 10,000

CERCLA Hazardous Substances:
   1. Dichloromethane 75-09-2, RQ = 1000
   2. Methanol 67-56-1, RQ = 5000
   3. Toluene 108-88-3, RQ = 1000
   4. Ethane-1,2-diol 107-21-1, RQ = 5000
   5. Methylloxirane 75-56-9, RQ = 100

EPCRA Section 313 Toxic Chemicals:
   1. Dichloromethane 75-09-2
   2. Methanol 67-56-1
   3. Toluene 108-88-3
   4. Ethane-1,2-diol 107-21-1

CAA 112(r) Regulated Chemicals for Accidental Release Prevention:
   1. Methylloxirane 75-56-9, TQ = 10,000

Hazardous Air Pollutants (HAP):

U.S. State Regulations

California Proposition 65:

⚠️ WARNING: This product can expose you to chemicals including dichloromethane, which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov. Complete list:
   1. Dichloromethane 75-09-2
   2. Methylloxirane 75-56-9

⚠️ WARNING: This product can expose you to chemicals including Methanol, which are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov. Complete list:
   1. Methanol 67-56-1
   2. Toluene 108-88-3

New Jersey Right to Know
   1. Dichloromethane 75-09-2
   2. Methanol 67-56-1
- Toluene 108-88-3
- Ethane-1,2-diol 107-21-1
- Methyloxirane 75-56-9

**Oregon DEQ List of Air Toxic Contaminants:** This mixture does not contain listed materials.
- Dichloromethane 75-09-2
- Methanol 67-56-1
- Toluene 108-88-3
- Ethane-1,2-diol 107-21-1
- Methyloxirane 75-56-9

**Pennsylvania Right to Know**
- Dichloromethane 75-09-2
- Methanol 67-56-1
- Toluene 108-88-3
- Ethane-1,2-diol 107-21-1
- Methyloxirane 75-56-9

**Canadian Environmental Protection Act:**
**WHMIS Classification:** No data available

**European Chemical Agency (ECHA)**
**Candidate List of Substances of Very High Concern (SoVHC):** No data available

**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.