Safety Data Sheet

SECTION 1: IDENTIFICATION

SDS Number: S-1645, version 8/19/2016

(a) Product identifier

Gans Description: Gans MRC S.C.

(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 number:
Available only during business hours.
(323) 264-2200 Monday- Friday 7:00 A.M. – 9:00 P.M.
24 Hours Response: Los Angeles County Fire Department / HazMat. Department

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 2

Health hazards:
- Skin Irritation - Category 2
- Eye Irritation - Category 2A
- Specific Target Organ Toxicity, Single Exposure (STOT SE), Respiratory - Category 3
- Specific Target Organ Toxicity, Single Exposure (STOT SE), Central Nervous System - Category 3
Germ Cell Mutagen -- Category 1B
Carcinogenicity -- Category 1B
Aquatic Toxicity, Chronic - Category 3

(b) Label elements
Signal Word: Danger

Hazard Statements: Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. May cause respiratory irritation. May cause genetic defects. May cause cancer. Harmful to aquatic life with long lasting effects. Highly flammable liquid and vapor.

Precautionary Statements:
Prevention: 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.

Avoid breathing mist/vapors/spray. Use only outdoors or in a well-ventilated area.

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.

Wash thoroughly after handling. Avoid release to the environment.

Response:
IF SWALLOWED: If exposed or concerned: Get medical advice/attention.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell.
IF ON SKIN OR HAIR: Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.
IF IN EYES: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

In case of fire: Use CO2, dry chemical, fire-fighting foam, or water fog to extinguish.

Storage: Store in a well-ventilated place. Keep container tightly closed. 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>Methyl acetate</td>
<td>79-20-9</td>
<td>25.0</td>
<td>45.0</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>20.0</td>
<td>40.0</td>
</tr>
<tr>
<td>1-chloro-4-(trifluoromethyl)benzene</td>
<td>98-56-6</td>
<td>10.0</td>
<td>30.0</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>111-76-2</td>
<td>1.0</td>
<td>15.0</td>
</tr>
<tr>
<td>Naphtha (petroleum), hydrotreated light</td>
<td>64742-89-8</td>
<td>1.0</td>
<td>15.0</td>
</tr>
</tbody>
</table>

SECTION 4: FIRST AID MEASURES

(a) Description of first aid measures:
Ingestion: If exposed or concerned: Get medical advice/attention.

Inhalation: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell.

Skin contact: If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. 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: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

(b) Most important symptoms and effects, both acute and delayed:
Ingestion: May cause genetic defects. May cause cancer.
Inhalation: May cause drowsiness or dizziness. May cause respiratory irritation.
Skin contact: Causes skin irritation.
Eye contact: Causes serious eye irritation.

(c) Indication of any immediate medical attention and special treatment needed:
Symptoms such as loss of breath, drowsiness or dizziness, 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, 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: Data not available

(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. Wear protective gloves, protective clothing, eye protection, face protection. Avoid breathing vapor. Avoid contact with skin, eye or clothing. Use explosion proof equipment. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

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.

(a.ii) Protective equipment: Positive pressure, full-face, self-contained breathing apparatus (SCBA), or positive pressure supplied air respirator with escape SCBA (NIOSH approved).

(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). Release can cause fire/explosion. Liquids/vapors may ignite. Do not touch or walk through spilled material. Isolate hazard area and keep unnecessary people away. Remove all possible sources of ignition in the surrounding area. Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

(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:
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. Avoid breathing fume, mist, vapors, spray. Use only outdoors or in a well-ventilated area. Wash hands and contaminated areas thoroughly after handling. 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.

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

Incompatibilities: Data not available
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>Methyl acetate</td>
<td>79-20-9</td>
<td>200</td>
<td>610</td>
<td>200 ppm (ST) 250 ppm</td>
<td>200 ppm (ST) 250 ppm</td>
<td>200 ppm (ST) 250 ppm</td>
<td>200 ppm (ST) 250 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>1000</td>
<td>2400</td>
<td>500 ppm (ST) 750 ppm (C) 3000 ppm</td>
<td>250 ppm</td>
<td>250 ppm (ST) 500 ppm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-chloro-4- (trifluoromethyl)benzene</td>
<td>98-56-6</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>Data not available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>111-76-2</td>
<td>50</td>
<td>24</td>
<td>20 ppm</td>
<td>5 ppm</td>
<td>20 ppm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Naphtha (petroleum), hydrotreated light</td>
<td>64742-89-8</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>Data not available</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(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: 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. Ansell Chemical Resistance Guide, 7th Edition recommends the following glove materials for ethyl acetate (similar to methyl acetate in product formula) and acetone: Barrier, Laminate film.

Eye Contact: Wear eye protection, and face protection. Eye and face protective devices must comply with ANSI Z87.1-1989. Recommended eye protection: full face shield, full facepiece respirator.

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, clear and straw colored

(b) Odor: Organic solvent

(c) Odor threshold: Data not available

(d) pH: NA
(e) Melting point/ freezing point: Data not available
(f) Initial Boiling point / Range: 132.8°F (56° C) estimated
(g) Flashpoint: 1.4 °F (-17 °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): 94 @ 68° F (20° C) calculated
(n) Solubility: Data not available
(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.): 8.8 calculated
VOC (lbs./gal): 0.69

This product contains solvents that are VOC exempt by SCAQMD Rule 102; and BAAQMD Regulation 8, Rule 20.
% VOC + % water + % exempt compounds = 100.0%

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: No data available
(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. May cause genetic defects. May cause cancer.
   Eye contact: Causes serious eye irritation.
   Inhalation: May cause drowsiness or dizziness. May cause respiratory irritation. There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.
   Ingestion: May cause cancer.

(c) Delayed and immediate effects, and chronic effects from long-term exposure
May cause genetic defects. May cause cancer.
(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>Methyl acetate</td>
<td>79-20-9</td>
<td>LD50 6482 mg/kg bw (rat)</td>
<td>LC0 (4 h) 49.2 mg/L air (rabbit)</td>
<td>LD50 2000 mg/kg bw (rat)</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>LD50 5800 mg/kg bw (rat)</td>
<td>LC50 (4 h) 76 mg/L air (rat)</td>
<td>LD50 7426 – 15,800 mg/kg bw (rabbit)</td>
</tr>
<tr>
<td>1-chloro-4-(trifluoromethyl) benzene</td>
<td>98-56-6</td>
<td>LD50 5546 - 7270 mg/kg bw (rat)</td>
<td>LC50 (4 h) 32.03 mg/L air (rat)</td>
<td>LD50 3300 mg/kg bw (rabbit)</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>111-76-2</td>
<td>LD50 1414 mg/kg bw (guinea pig)</td>
<td>LC50 (4 h) 450 - 900 ppm (rat)</td>
<td>LD50 2000 mg/kg bw (rabbit)</td>
</tr>
<tr>
<td>Naphtha (petroleum), hydrotreated light</td>
<td>64742-89-8</td>
<td>LDL 5000 mg/kg bw (rat)</td>
<td>Data not available, not classified</td>
<td>LD50 2000 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: No data available

SECTION 12: ECOLOGICAL INFORMATION

(a) Ecotoxicity
Classification of mixture:
- Aquatic Toxicity, Chronic - Category 3
(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
- Acetone 67-64-1: U002

SECTION 14: TRANSPORT INFORMATION

US DOT (Ground):
(a) UN number: UN1993
(b) UN Proper Shipping Name: Flammable Liquid, N.O.S. (Methyl Acetate, Acetone) Class 3
(c) Transport hazard class: Flammable Liquid, N.O.S. (Methyl Acetate, Acetone) Class 3
(d) Packing Group: PG II
(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: This mixture does not contain listed materials.
CERCLA Hazardous Substances:
   Acetone 67-64-1: RQ = 5000
EPCRA Section 313 Toxic Chemicals: This mixture does not contain listed materials.
CAA 112(r) Regulated Chemicals for Accidental Release Prevention: This mixture does not contain listed materials.
Hazardous Air Pollutants (HAP): This mixture does not contain listed materials.

U.S. State Regulations
Pennsylvania Right to Know
   No data available
New Jersey Right to Know
   No data available

California Proposition 65: This mixture does not contain listed materials.

Canadian Environmental Protection Act:
WHMIS Classification: No data available

European Chemical Agency (ECHA): 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.