**Safety Data Sheet**

SECTION 1: IDENTIFICATION

**SDS Number:** S-1805, version 1/19/2017

(a) **Product identifier**
**Gans Item ID:** S-1805G, S-1805P, S-1805Q

**Gans Description:** Gans Diamond Etch AMJ

(b) **Other means of identification**
**General description:** Lithographic press chemistry

(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:** Not classified a Hazardous
**Health hazards:**
- Skin Irritation - Category 2
- Eye Damage - Category 1
- Skin Sensitization – Category 1
- Respiratory Sensitization – Category 1
- Carcinogenicity - Category 1B
- Reproductive Toxicity – Category 1B
(b) Label elements

**Signal Word:** Danger

**Hazard Statements:** Causes skin irritation; Causes serious eye damage; May cause an allergic skin reaction; May cause allergy or asthma symptoms or breathing difficulties if inhaled; May cause cancer; May damage fertility or the unborn child; Harmful to aquatic life; Harmful to aquatic life with long lasting effects.

**Precautionary Statements:**
Prevention: Wear protective gloves/protective clothing/eye protection/face protection. Wash hands and contaminated areas thoroughly after handling. Avoid breathing fume/mist/vapors/spray. In case of inadequate ventilation: wear respiratory protection. Contaminated work clothing must not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid release to the environment.

Response:
If exposed or concerned: Get medical advice/attention.

IF SWALLOWED: If exposed or concerned: Get medical advice/attention. IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center/doctor.
IF ON SKIN OR HAIR: Wash with plenty of water and soap. If skin irritation or rash 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.

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>
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<tr>
<td>cobalt(2+) dinitrate</td>
<td>10141-05-6</td>
<td>0.1</td>
<td>1</td>
</tr>
</tbody>
</table>

SECTION 4: FIRST AID MEASURES

(a) **Description of first aid measures:**

**Ingestion:** Rinse mouth. If exposed or concerned: Get medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention.

**Inhalation:** If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center/doctor.

**Skin contact:** If on skin (or hair): Wash with plenty of water and soap. If skin irritation or rash 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:** May cause cancer. May damage fertility or the unborn. Causes skin irritation. May cause an allergic skin reaction.

**Inhalation:** Causes skin irritation. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Skin contact:** Causes skin irritation. May cause an allergic skin reaction.

**Eye contact:** Causes serious eye damage. May cause an allergic skin reaction.

(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, 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:** None known

(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. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.
(a.ii) Protective equipment: Wear protective gloves/protective clothing/eye protection/face protection. For details, see Section 8.

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

Do not touch or walk through spilled material. Isolate hazard area and keep unnecessary people away. Notify authorities if any exposure to the general public or the environment occurs or is likely to occur. If spilled material is cleaned up using a regulated solvent, the resulting waste mixture may be regulated.

(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. Wash hands and contaminated areas thoroughly after handling. Take off contaminated clothing and wash it before reuse.

(b) Conditions for safe storage:
Store locked up. Keep container tightly closed in a dry and well-ventilated place.

Incompatibilities: Keep away from oxidizing agents and strongly acid or alkaline materials.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>(a) Exposure data</th>
<th>OSHA PEL</th>
<th>Cal/OSHA PEL</th>
<th>NIOSH REL</th>
<th>ACGIH 2015 TVL</th>
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<tbody>
<tr>
<td>Substance</td>
<td>CAS #</td>
<td>ppm</td>
<td>mg/m³</td>
<td>8-hour TWA (ST)</td>
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<tr>
<td></td>
<td></td>
<td>5 hour</td>
<td>Ceiling</td>
<td>TWA (ST)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 hour</td>
<td>Ceiling</td>
<td>STEL (C)</td>
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<td>10377-60-3</td>
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<td>Data not available</td>
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<tr>
<td>citric acid</td>
<td>77-92-9</td>
<td>Data not available</td>
<td>Data not available</td>
<td>Data not available</td>
</tr>
<tr>
<td>phosphoric acid</td>
<td>7664-38-2</td>
<td>Data not available</td>
<td>Data not available</td>
<td>1 mg/m³ (ST) 3 mg/m³</td>
</tr>
<tr>
<td>cobalt(2+) dinitrate</td>
<td>10141-05-6</td>
<td>Data not available</td>
<td>Data not available</td>
<td>Data not available</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 the mist, vapors, spray. In case of inadequate ventilation: wear respiratory protection. Where mist or aerosol is present, an organic vapor full facepiece respirator is recommended (to protect eyes and face).

Skin Contact: Wear protective gloves, and protective clothing. Contaminated work clothing must not be allowed out of the workplace. Ansell Chemical Resistance Guide, 7th Edition recommends the following glove materials for phosphoric and citric acids: Nitrile Sol-Vex; Unsupported Neoprene 29-865; Polyvinyl Chloride Snorkel; Neoprene/Natural Rubber Blend Chemi-Pro.


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

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

(a) Appearance (physical state, color): Liquid, violet colored
(b) Odor: Data not available
(c) Odor threshold: Data not available
(d) pH: 2.1
(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): 1.18 @ 68 °F (20 °C)
(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: < 14 mm²/s @ 104 °F (40 °C)

Other properties
VOC % (wt.): 4.81
VOC: 4.79 lbs./gal; 56.8 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: Exothermic reaction with bases (pH > 7)
(d) Conditions to avoid: Keep away from open flames, sparks, hot surfaces and sources of ignition.
(e) Incompatible materials: Strong bases.
(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: Causes skin irritation. May cause an allergic skin reaction.

Eye contact: Causes serious eye damage. May cause an allergic skin reaction.

Inhalation: Causes skin irritation. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Ingestion: May cause cancer. May damage fertility or the unborn. Causes skin irritation. May cause an allergic skin reaction.

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

May cause cancer. May damage fertility or the unborn. May cause an allergic skin reaction.

(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>magnesium dinitrate</td>
<td>10377-60-3</td>
<td>LD50 2000 mg/kg bw (rat)</td>
<td>Data not available</td>
<td>LD50 5000 mg/kg bw (rat)</td>
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<tr>
<td>citric acid</td>
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<td>LD50 5400 mg/kg bw (mouse)</td>
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<td>Data not available</td>
<td>Data not available</td>
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<tr>
<td>cobalt(2+) dinitrate</td>
<td>10141-05-6</td>
<td>LD50 140 - 978 mg/kg bw (rat)</td>
<td>Data not available</td>
<td>LD50 2000 mg/kg bw (rat)</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 hazard, Acute - Category 3
- Aquatic hazard, 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: This mixture does not contain listed materials.

SECTION 14: TRANSPORT INFORMATION

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

(a) UN number: Not regulated as a dangerous good.

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

(c) Transport hazard class: Not regulated as a dangerous good.

(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 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:
  phosphoric acid 7664-38-2: 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.