Safety Data Sheet

SECTION 1: IDENTIFICATION

SDS Number: 610.4, version 2/8/2019

(a) Product identifier
Gans Item ID: A180000, A180001, A180002, A180003

Gans Description:
OS AURORA PROCESS

(b) Other means of identification
General description: Offset/ Lithographic Inks

(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: Shayne Robbs
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

Physical hazards: NA
Health hazards:
- Acute Toxicity, Oral -- Category 4
- Eye Damage/Irritation – Category 2A
- Sensitization, Skin – Category 1A
- Germ Cell Mutagenicity – Category 2

(b) Label elements
Signal Word: Warning
Hazard Statements: Harmful if swallowed. Causes serious eye irritation. May cause an allergic skin reaction. Suspected of causing genetic defects.

Precautionary Statements: 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. Wash all contaminated areas thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing must not be allowed out of the workplace.

Response:
If exposed or concerned: Get medical advice/attention.
IF SWALLOWED: Call a poison center/doctor if you feel unwell. Rinse mouth.
IF ON SKIN OR HAIR: Wash with plenty of water and soap. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
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.
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: NA

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<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>Phenolic resin</td>
<td>9003-35-4</td>
<td>18.0%</td>
<td>40.0%</td>
</tr>
<tr>
<td>Fatty acids, tall-oil, cobalt salts</td>
<td>61789-52-4</td>
<td>0.0%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated middle</td>
<td>64742-46-7</td>
<td>0.0%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Residual oils (petroleum), solvent-dewaxed</td>
<td>64742-62-7</td>
<td>0.0%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Hydroquinone</td>
<td>123-31-9</td>
<td>0.0%</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

SECTION 4: FIRST AID MEASURES

(a) Description of first aid measures:
If exposed or concerned: Get medical advice/attention.
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 soap. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye contact: 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.
Ingestion: Call a poison center/doctor if you feel unwell. Rinse mouth.

(b) Most important symptoms and effects, both acute and delayed:
Ingestion: Harmful if swallowed. Suspected of causing genetic defects.
Inhalation: Data not available.
Skin contact: May cause an allergic skin reaction.
Eye contact: Causes serious eye irritation.

(c) Indication of any immediate medical attention and special treatment needed: Data not available.

SECTION 5: FIRE – FIGHTING MEASURES

(a) Extinguishing Media:
Suitable extinguishing media: Use CO₂, extinguishing powder or foam, or water spray. Fight larger fires with water spray or alcohol resistant foam.
Unsuitable extinguishing media: Water with full jet.
(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: Avoid direct contact with spilled material. Wear all Personal Protection listed in Section 8 before directly contacting spilled material. Ensure there is adequate area ventilation, and avoid excessive inhalation of fumes.

(a.ii) Protective equipment: See Section 8 for details.
(a.iii) Emergency procedures: Follow emergency procedures that are appropriate for the general industrial environment.
(b) Methods for containment and cleaning up: If it is safe to do so, adjust leaking containers to reduce or eliminate the continued release. Wear all Personal Protection listed in Section 8 before directly contacting spilled material. For high viscosity materials, scoop or shovel material into appropriate container for reuse, recycling, or disposal. For low viscosity materials, first surround and then cover spilled material with inert absorbent (vermiculite, or similar). Then scoop or shovel material into appropriate container for reuse, recycling, or disposal.

Residual material can be cleaned with acetone, or other press solvent. Consult your company's spill procedure for details of regulatory restrictions and recommendations. Do not allow spilled materials, or clean up materials to enter storm drains or natural water ways.

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 mist/vapors/spray.

(b) Conditions for safe storage: Store locked up. Ideal storage temperature is 50-90 °F (10-32 °C).

Incompatibilities: Keep away from high heat, and freezing.
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) Ceiling</th>
<th>-Up to 10-hour TWA (ST) STEL (C) Ceiling</th>
<th>8-hour TWA (ST) STEL (C) Ceiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenolic resin</td>
<td>9003-35-4</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>
</tr>
<tr>
<td>Fatty acids, tall-oil, cobalt salts</td>
<td>61789-52-4</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>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated middle</td>
<td>64742-46-7</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>
</tr>
<tr>
<td>Residual oils (petroleum), solvent-dewaxed</td>
<td>64742-62-7</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>
</tr>
<tr>
<td>Hydroquinone</td>
<td>123-31-9</td>
<td>Data not available</td>
<td>2</td>
<td>2 mg/m³ (C) 2 mg/m³ [15-min]</td>
<td>1 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines</td>
<td>68410-23-1</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>
</tr>
</tbody>
</table>

(b) Appropriate engineering controls:
Ventilation requirements: Ensure adequate ventilation for general industrial environment.

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

(c) Personal protective equipment:
Inhalation: Where mist/ vapors/spray is present, wear an organic vapor respirator.
Skin Contact: Wear protective gloves/protective clothing. Neoprene or nitrile gloves are recommended.
Eye Contact: Wear eye protection/face protection. Eye and face protective devices must comply with ANSI Z87.1-1989.
Recommended eye protection: safety glasses or goggles, flexible fitting, hooded ventilation.
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): Paste, various colors
(b) Odor: Oleoresinous
(c) Odor threshold: Data not available
(d) pH: Not applicable
(e) Melting point/ freezing point: Data not available
(f) Initial Boiling point / Range: 554 - 626 °F (290 - 330 °C)
(g) Flashpoint: 293 °F (145 °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: Data not available
(l) Vapor Density (Air = 1): Data not available
(m) Relative Density (H₂O = 1): .95 - 1.1 (68 °F (20 °C))
(n) Solubility: Minimally soluble 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: Data not available

Other properties
VOC % (wt.): 9 - 15; 11.7 = average
VOC: 1.37 lbs. /gal. maximum, 1.07 lbs./gal. average; 165 g/L maximum, 129 g/L average

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 high heat, freezing, and direct sunlight.
(e) Incompatible materials: Strong oxidizers.
(f) Hazardous decomposition product: Carbon and nitrogen oxides are the main combustion gases.

SECTION 11: TOXICOLOGICAL INFORMATION

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

(b) Symptoms related to physical, chemical, and toxicological characteristics:
   - Skin contact: May cause an allergic skin reaction. May cause irritation and drying of the skin.
   - Eye contact: Causes serious eye irritation. May cause eye irritation with redness and tearing.
   - Inhalation: Mist or vapor can irritate the throat and lungs. High concentrations may cause nasal and respiratory irritation.
   - Ingestion: May cause irritation of the mouth, throat and esophagus. Swallowing may cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

(c) Delayed and immediate effects, and chronic effects from long-term exposure
May cause an allergic skin reaction. Causes serious eye irritation. Suspected of causing genetic defects.

(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>Phenolic resin</td>
<td>9003-35-4</td>
<td>Data not available</td>
<td>Data not available</td>
<td>Data not available</td>
</tr>
<tr>
<td>Fatty acids, cobalt salts</td>
<td>61789-52-4</td>
<td>Data not available</td>
<td>Data not available</td>
<td>Data not available</td>
</tr>
<tr>
<td>Distillates, hydrotreated…</td>
<td>64742-46-7</td>
<td>LD50 5000 mg/kg bw (rat)</td>
<td>LC50 (4 h) 1.72 - 4.6 mg/L air (rat)</td>
<td>LD50 2 000 mg/kg bw (rabbit)</td>
</tr>
<tr>
<td>Residual oils, solvent…</td>
<td>64742-62-7</td>
<td>LD50 5 000 mg/kg bw (rat)</td>
<td>LC50 (4 h) 2.18 - 5.53 mg/L air (rat)</td>
<td>LD50 2 000 - 5 000 mg/kg bw (rabbit)</td>
</tr>
<tr>
<td>Hydroquinone</td>
<td>123-31-9</td>
<td>LD50 367.3 - 375 mg/kg bw (rat)</td>
<td>Data not available</td>
<td>LD50 2000 mg/kg bw (rabbit)</td>
</tr>
<tr>
<td>Fatty acids, C18-unsatd…</td>
<td>68410-23-1</td>
<td>LD50 2 000 mg/kg bw (rat)</td>
<td>Data not available</td>
<td>LD50 2 000 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: 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
(a) UN number: Not regulated
(b) UN Proper Shipping Name: Not regulated
(c) Transport hazard class: Not regulated
(d) Packing Group: Not regulated
(e) Environmental hazards: Not regulated
(f) Transport in bulk
   MARPOL 73/78: Not regulated
   IBC: Not regulate.
(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:
- Hydroquinone, CAS 123-31-9: TPQ 500/10,000

CERCLA Hazardous Substances:
- Hydroquinone, CAS 123-31-9: RQ 100
- Fatty acids, tall-oil, cobalt salts CAS 61789-52-4: Cobalt Compound N096; no RQ assigned

EPCRA Section 313 Toxic Chemicals:
- Hydroquinone, CAS 123-31-9
- Fatty acids, tall-oil, cobalt salts CAS 61789-52-4: Cobalt Compound N096

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

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

New Jersey Right to Know:
  • Hydroquinone, CAS 123-31-9

Oregon DEQ List of Air Toxic Contaminants:
  • Hydroquinone, CAS 123-31-9

Pennsylvania Right to Know:
  • Hydroquinone, CAS 123-31-9: Environmental Hazard

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.