Safety Data Sheet

SECTION 1: IDENTIFICATION

SDS Number: 614, version 7/10/2018

(a) Product identifier
Gans Item ID: A140260X, A140261X, A140262X, A140263X, A132330, A132331, A132332, A132333

Gans Description: OS Case-Hard II, OS Case-Hard Rub-Resist

(b) Other means of identification
General description: Lithographic printing ink

(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

Physical hazards: NA
Health hazards:
  o Skin Irritation – Category 2
  o Eye Damage/Irritation – Category 2A
  o Sensitization, Skin – Category 1A
  o Germ Cell Mutagenicity – Category 1B
  o Carcinogenicity – Category 1B
  o Toxic to Reproduction – Category 2
  o Specific Target Organ Toxicity (respiratory), Repeat Exposure – Category 2
(b) Label elements

Signal Word: Danger

Hazard Statements: Causes skin irritation; May cause an allergic skin reaction; Causes serious eye irritation; May cause genetic defects; May cause cancer; Suspected of damaging fertility or the unborn child; May cause damage to organs through prolonged or repeated exposure

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. Do not breathe fume/mist/vapors/spray. Wash all contaminated areas thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

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

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. If eye irritation persists: Get medical advice/attention.

IF INHALED: Get medical advice/attention if you feel unwell.

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>Proprietary resin</td>
<td>TS</td>
<td>0.0%</td>
<td>19.1%</td>
</tr>
<tr>
<td>Proprietary Rosin Ester</td>
<td>TS</td>
<td>0.0%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Distillates (petroleum), sweetened middle</td>
<td>64741-86-2</td>
<td>0.0%</td>
<td>3.1%</td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated middle</td>
<td>64742-46-7</td>
<td>0.1%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy</td>
<td>64742-48-9</td>
<td>0.1%</td>
<td>0.3%</td>
</tr>
</tbody>
</table>
### Section 4: First Aid Measures

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

**Inhalation:** Get medical advice/attention if you feel unwell. If breathing is difficult, remove person to fresh air and keep 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. If eye irritation persists: Get medical advice/attention.

**Ingestion:** If exposed or concerned: Get medical advice/attention.

(b) **Most important symptoms and effects, both acute and delayed:**

**Ingestion:** May cause genetic defects; May cause cancer; Suspected of damaging fertility or the unborn child.

**Inhalation:** Data not available.

**Skin contact:** Causes skin irritation; 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, dry chemical extinguishing powder, 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:** Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe fume/mist/vapors/spray.

(a.ii) **Protective equipment:** See Section 8 for details. Use personal protective equipment that is appropriate for the general industrial environment.

(a.iii) **Emergency procedures:** Follow emergency procedures that are appropriate for the general industrial environment.

(b) **Methods for containment and cleaning up:** Dike and contain spill. Soak up with inert absorbent material.
SECTION 7: HANDLING AND STORAGE

(a) Precautions for safe handling: Do not ingest. Wash hands after handling. Take off contaminated clothing and wash it before reuse. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing mist/vapors/spray.

(b) Conditions for safe storage: Keep cool. Do not freeze. Ideal storage temperature is 50-90 °F (10-32 °C).

Incompatibilities: Keep away from oxidizing agents. 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>
</tr>
</thead>
<tbody>
<tr>
<td>Hydroquinone</td>
<td>123-31-9</td>
<td>2</td>
<td>2 mg/m³</td>
</tr>
</tbody>
</table>

(b) Appropriate engineering controls:

Ventilation requirements: 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: 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/protective clothing that is appropriate for the general industrial environment. Neoprene or nitrile gloves are recommended.


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): Viscous liquid, amber color
(b) Odor: Mild oleoresinous smell
(c) Odor threshold: Data not available
(d) pH: NA
(e) Melting point/ freezing point: Data not available
(f) Initial Boiling point / Range: Data not available
(g) Flashpoint: > 200 °F (> 93.3 °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 (H$_2$O = 1)**: 1.06 average
(n) **Solubility**: Insoluble 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.): 5.0 average
- VOC: .44 lbs./gal.; 53 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 high heat, freezing.
(e) **Incompatible materials**: Strong oxidizers.
(f) **Hazardous decomposition product**: Data not available

**SECTION 11: TOXICOLOGICAL INFORMATION**

(a) **Likely routes of exposure**: Inhalation, skin contact, eye contact, ingestion.

(b) **Symptoms related to physical, chemical, and toxicological characteristics:**
   - **Inhalation**: Data not available
   - **Skin contact**: Causes skin irritation; May cause an allergic skin reaction.
   - **Eye contact**: Causes serious eye irritation.
   - **Ingestion**: 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**
   - 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>Proprietary resin</td>
<td>TS</td>
<td>Data not available</td>
<td>Data not available</td>
<td>Data not available</td>
</tr>
<tr>
<td>Proprietary Rosin Ester</td>
<td>TS</td>
<td>Data not available</td>
<td>Data not available</td>
<td>Data not available</td>
</tr>
<tr>
<td>Distillates (petroleum)</td>
<td>64741-86-2</td>
<td>LD50 5000 mg/kg bw (rat)</td>
<td>LC50 (4 h) 1.72 - 4.6 mg/L air (rat)</td>
<td>LD50 2000 mg/kg bw (rabbit)</td>
</tr>
<tr>
<td>Distillates (petroleum)</td>
<td>64742-46-7</td>
<td>LD50 5000 mg/kg bw (rat)</td>
<td>LC50 (4 h) 4.6 mg/L air (rat)</td>
<td>LD50 2000 mg/kg bw (rabbit)</td>
</tr>
<tr>
<td>Substance</td>
<td>CAS #</td>
<td>Oral</td>
<td>Inhalation</td>
<td>Dermal</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------------</td>
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<td>-----------------------------</td>
</tr>
<tr>
<td>Residual oils (petroleum)</td>
<td>64742-62-7</td>
<td>LD50 5000 mg/kg bw (rat)</td>
<td>LC50 (4 h) 2.18 - 5.53 mg/L air (rat)</td>
<td>LD50 2000 - 5000 mg/kg bw (rabbit)</td>
</tr>
<tr>
<td>Naphtha (petroleum)</td>
<td>64742-48-9</td>
<td>LD50 5000 mg/kg bw (rat)</td>
<td>Data not available</td>
<td>LD50 2000 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>Sodium perborate monohydrate</td>
<td>10332-33-9</td>
<td>LD50 890 - 1300 mg/kg bw (rat)</td>
<td>LC50 (4 h) 1.165 mg/L air (rat)</td>
<td>LD50 2000 mg/kg bw (rabbit)</td>
</tr>
<tr>
<td>2-(2-methoxyethoxy) ethanol</td>
<td>111-77-3</td>
<td>LD50 7128 - 8188 mg/kg bw (mouse)</td>
<td>LC0 (6 h) 1.2 mg/L air (rat)</td>
<td>LD50 9404 mg/kg bw (rabbit)</td>
</tr>
<tr>
<td>Calcium bis(2-ethylhexanoate)</td>
<td>136-51-6</td>
<td>LD50 2043 mg/kg bw (rat)</td>
<td>LC0 (8 h) 110 mg/m³ air (rat)</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: This mixture does not contain listed materials.

SECTION 12: ECOLOGICAL INFORMATION

(a) Ecotoxicity: 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: 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: Not regulated as a dangerous good
IBC: Not regulated as a dangerous good.

(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:
  o Hydroquinone 123-31-9 TPQ 500/10,000

CERCLA Hazardous Substances:
  o Hydroquinone 123-31-9 RQ 100

EPCRA Section 313 Toxic Chemicals:
  o Hydroquinone 123-31-9

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:
  o Hydroquinone 123-31-9

New Jersey Right to Know:
  o Hydroquinone 123-31-9

Pennsylvania Right to Know: This mixture does not contain listed materials.
  o 2-(2-methoxyethoxy)ethanol 111-77-3
  o Hydroquinone 123-31-9

Canadian Environmental Protection Act:
WHMIS Classification: No data available

European Chemical Agency (ECHA) Candidate List of Substances of Very High Concern:
  o Sodium perborate monohydrate CAS 10332-33-9 < 0.15%

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.