Safety Data Sheet

SECTION 1: IDENTIFICATION

SDS Number: 632, version 11/20/2017

(a) Product identifier
Gans Item ID: X101124, X102037, X102100, X102101, X102102, X102103, X102104, X102931, X102975, X103527, X103529,

Gans Description:
OS Invisible Fluor (escent), OS Invis Fluor
OS Glow in the Dark Green, OS IR Upconv

(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

(a) Classification
This mixture is hazardous according to OSHA Hazard Communication Standard (29 CFR 1910.1200).

- Physical hazards: Not classified as hazardous
- Health hazards:
  - Eye Damage/Irritation – Category 2A
  - Sensitization, Skin – Category 1B
  - Carcinogenicity – Category 1B
  - Toxic to Reproduction – Category 2
(b) Label elements

**Signal Word:** Danger

**Hazard Statements:** Causes serious eye irritation. May cause an allergic skin reaction; May cause cancer; Suspected of damaging fertility or the unborn child; May cause respiratory irritation; Toxic to aquatic life with long lasting effects.

**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. Contaminated work clothing must not be allowed out of the workplace. 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:** Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell.
**IF ON SKIN OR HAIR:** Wash with plenty of water and mild 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.

Collect spillage.

Storage: Store locked up. Store in a well-ventilated place. Keep container tightly closed.

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>Proprietary phosphorescent pigment, Gans C-1163</td>
<td>TS</td>
<td>0.0%</td>
<td>48.0%</td>
</tr>
<tr>
<td>Proprietary Fluorescent Pigment, Gans C-1039</td>
<td>TS</td>
<td>0.0%</td>
<td>14.3%</td>
</tr>
<tr>
<td>Rosin Adduct Ester, Gans V-5133</td>
<td>TS</td>
<td>0.0%</td>
<td>9.9%</td>
</tr>
<tr>
<td>Proprietary Fluorescent Pigment, Gans C-1082</td>
<td>TS</td>
<td>0.0%</td>
<td>6.4%</td>
</tr>
<tr>
<td>Fatty acids, tall-oil, cobalt salts</td>
<td>61789-52-4</td>
<td>0.0%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy</td>
<td>64742-48-9</td>
<td>0.0%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated middle</td>
<td>64742-46-7</td>
<td>0.0%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Residual oils (petroleum), solvent-dewaxed</td>
<td>64742-62-7</td>
<td>0.0%</td>
<td>0.1%</td>
</tr>
<tr>
<td>2-(2-methoxyethoxy)ethanol</td>
<td>111-77-3</td>
<td>0.0%</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

SECTION 4: FIRST AID MEASURES

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

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

Skin contact: Wash with plenty of water and mild 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.

(b) Most important symptoms and effects, both acute and delayed:
Ingestion: May cause cancer. Suspected of damaging fertility or the unborn child.
Inhalation: May cause respiratory irritation.
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:
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: Upon combustion, may emit toxic fumes, dangerous carbon and nitrogen oxides, hydrogen chloride.

(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. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing mist/vapors/spray. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

(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, and follow your company’s emergency procedures.

Isolate hazard area and keep unnecessary people away. Collect spillage. 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. Use only outdoors or in a well-ventilated area. Wash hands and contaminated areas thoroughly after handling. Keep container tightly closed. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment.

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

Incompatibilities: Keep away from strong oxidizing agents.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

(a) Permissible exposure limits

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS #</th>
<th>OSHA PEL ppm</th>
<th>Cal/OSHA PEL mg/m³ 8-hour TWA (ST) STEL (C) Ceiling</th>
<th>NIOSH REL 10-hour TWA (ST) STEL (C) Ceiling</th>
<th>ACGIH 2015 TVL 8-hour TWA (ST) STEL (C) Ceiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>No hazardous ingredients appear on OSHA Annotated Tables Z-1, Z-2, or Z-3.</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data 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: Avoid breathing 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 mixed hydrocarbons: Barrier, laminate film; Sol-Vex, nitrile; 29-Series, unsupported neoprene; 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): Paste, cream colored
(b) Odor: oleo-resinous
(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: >212 °F (>100 °C) Estimated
(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): 1.31 Average
(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.): 11.7 Average
VOC: 1.28 lbs./gal; 153 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 open flames, sparks, hot surfaces and sources of ignition.
(e) Incompatible materials: Strong oxidizers.
(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: May cause an allergic skin reaction.
Eye contact: Causes serious eye irritation.
Inhalation: May cause respiratory irritation.
Ingestion: 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 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>Gans C-1163</td>
<td>TS</td>
<td>Data not available</td>
<td>Data not available</td>
<td>Data not available</td>
</tr>
<tr>
<td>Gans C-1039</td>
<td>TS</td>
<td>Data not available</td>
<td>Data not available</td>
<td>Data not available</td>
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<tr>
<td>Gans V-5133</td>
<td>TS</td>
<td>Data not available</td>
<td>Data not available</td>
<td>Data not available</td>
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<td>Data not available</td>
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<tr>
<td>Naphtha (petroleum), hydrotreated heavy</td>
<td>64742-48-9</td>
<td>LD50 5000 – 15,000 mg/kg bw (rat)</td>
<td>LC50 (8 h) 5 mg/L air (rat)</td>
<td>LD50 2000 mg/kg bw (rat)</td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated middle</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>Residual oils (petroleum), solvent-dewaxed</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>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>
</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:
- Hazardous to the Aquatic Environment, Chronic – Category 2
(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: 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: This mixture does not contain listed materials.
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
   ○ 2-(2-methoxyethoxy)ethanol CAS 111-77-3
New Jersey Right to Know: This mixture does not contain listed materials.
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.