Safety Data Sheet

SECTION 1: IDENTIFICATION

SDS Number: 514.2, version 7/21/2017

(a) Product identifier
Gans Item ID: UVS-9200

Gans Description: Low-Zone High Gloss Coating

(b) Other means of identification
General description: UV cure coating

(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 Toxic to Reproduction – Category 1B
  o Specific Target Organ Toxicity (respiratory), Single Exposure – Category 3
  o Specific Target Organ Toxicity (liver, kidney) , Repeat Exposure – Category 2
(b) Label elements

Signal Word: Danger

Hazard Statements: Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. May damage fertility or the unborn child. May cause respiratory irritation. May cause damage to organs (liver, kidneys) 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 mist/ vapors/spray. Use only outdoors or in a well-ventilated area. Wash 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. Get medical advice/attention if you feel unwell.

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. If eye irritation persists: 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.

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: NA

SECTION 3: COMPOSITION/ INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS # (TS= Trade Secret)</th>
<th>Conc. max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1-methyl-1,2-ethanediyl)bis[oxy(methyl)-2,1-ethanediyl)] diacrylate</td>
<td>42978-66-5</td>
<td>24.5%</td>
</tr>
<tr>
<td>Pentaerythritol, ethoxylated, esters with acrylic acid</td>
<td>51728-26-8</td>
<td>15.2%</td>
</tr>
<tr>
<td>Aromatic urethane acrylate</td>
<td>TS</td>
<td>9.2%</td>
</tr>
<tr>
<td>2,2-bis[[1-oxoally]oxy[methyl]-1,3-propanediyl diacrylate</td>
<td>4986-89-4</td>
<td>5.9%</td>
</tr>
<tr>
<td>Gans UVP-2002</td>
<td>TS</td>
<td>3.0%</td>
</tr>
<tr>
<td>Gans UVP-2035</td>
<td>TS</td>
<td>2.0%</td>
</tr>
<tr>
<td>2-(hydroxymethyl)-2-[[1-oxoally]oxy[methyl]-1,3-propanediyl diacrylate</td>
<td>3524-68-3</td>
<td>1.3%</td>
</tr>
<tr>
<td>Reactive tertiery amine</td>
<td>TS</td>
<td>1.0%</td>
</tr>
<tr>
<td>Benzophenone</td>
<td>119-61-9</td>
<td>1.0%</td>
</tr>
<tr>
<td>Substance</td>
<td>CAS # (TS= Trade Secret)</td>
<td>Conc. max.</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Siloxanes and Silicones, 3-[3-(acetyloxy)-2-hydroxypropoxy]propyl Me, di-Me, 3-[2-hydroxy-3-[(1-oxo-2-propen-1-yl)oxy]propoxy]propyl Me</td>
<td>125455-51-8</td>
<td>0.5%</td>
</tr>
<tr>
<td>Glycerol, propoxylated, esters with acrylic acid</td>
<td>52408-84-1</td>
<td>0.4%</td>
</tr>
<tr>
<td>4,4′-Isopropylidendiphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, esters with acrylic acid</td>
<td>55818-57-0</td>
<td>0.3%</td>
</tr>
<tr>
<td>aluminium(3+) ion tris(N-nitroso-N-oxidoaniline)</td>
<td>15305-07-4</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

SECTION 4: FIRST AID MEASURES

(a) Description of first aid measures:

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

Ingestion: Get medical advice/attention if you feel unwell.

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

Ingestion: May damage fertility or the unborn child. May cause damage to organs (liver, kidneys) through prolonged or repeated exposure.

Inhalation: May cause respiratory irritation.

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, fire-fighting foam, or water fog extinguishing media

Unsuitable extinguishing media: Do not use water stream. Water stream or spray is OK to cool containers only.

(b) Special hazards arising from the substance or mixture: Thermal decomposition or combustion products may include COx, and NOx. High pressure may build up in heated containers.

(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: 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 mist/ vapors/spray. Use only outdoors or in a well-ventilated area. Wash contaminated areas thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

(a.ii) Protective equipment: See Section 8 for details.

(a.iii) Emergency procedures: If dangerous conditions exist, contact emergency response personnel, follow emergency procedures, and contact emergency response authorities.
(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 UV blanket wash, 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:** Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe mist/vapors/spray. Use only outdoors or in a well-ventilated area. Wash contaminated areas thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

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

**Incompatibilities:** Avoid contact with heat, sources of ignition, sunlight, and strong oxidizers.

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>No hazardous ingredients appear on OSHA Annotated Tables Z-1, Z-2, or Z-3.</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></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:** Avoid breathing mist/vapors/spray. Where mist or aerosol is present, an organic vapor respirator is recommended.

**Skin Contact:** Wear protective gloves/protective clothing. Contaminated work clothing must not be allowed out of the workplace. Neoprene or nitrile gloves are recommended. PVC gloves are not compatible. Always wear long sleeves and where exposure potential is high, a neoprene or other chemical resistant apron is recommended.

**Eye Contact:** Wear eye protection/face protection. Eye and face protective devices must comply with ANSI Z87.1-1989. Recommended eye protection: goggles, flexible fitting, hooded ventilation. A transparent face shield is 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, colorless

(b) **Odor:** Ester-like

(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)
(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): Data not available
(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): ≤ 1.0
VOC (lbs./gal): ≤ 0.11

SECTION 10: STABILITY AND REACTIVITY INFORMATION

(a) Reactivity: Not reactive under normal storage conditions. See Section 7. Mixture will undergo polymerization reaction in the presence of sunlight, bright industrial lights, or high temperatures.

(b) Chemical stability: Mixture is chemically stable under normal storage and handling conditions, and under normal temperatures and pressures.

(c) Possibility of hazardous reactions: Exposure to excess heat may cause exothermic polymerization reaction.

(d) Conditions to avoid: Avoid contact with heat (temperature > 100° F, 38° C), sources of ignition, sunlight, and strong oxidizers.

(e) Incompatible materials: Radical forming initiators, peroxides or other strong oxidizers, strong alkalies or reactive metals.

(f) Hazardous decomposition product: No data available.

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: Causes skin irritation. May cause an allergic skin reaction.
   Eye contact: Causes serious eye irritation.
   Inhalation: May cause respiratory irritation.
   Ingestion: May damage fertility or the unborn child. May cause damage to organs (liver, kidneys) through prolonged or repeated

(c) Delayed and immediate effects, and chronic effects from long-term exposure
   May damage fertility or the unborn child. May cause damage to organs (liver, kidneys) through prolonged or repeated

(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></td>
<td>42978-66-5</td>
<td>LD50 2000 - 5000 mg/kg bw (rat)</td>
<td>LC0 (7 h) 545 - 410 000 µg/m³ air (rat)</td>
<td>LD50 2000 - 3650 mg/kg bw (rabbit)</td>
</tr>
<tr>
<td>See Section 3</td>
<td>51728-26-8</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>
<tr>
<td>Substance</td>
<td>CAS # (TS= trade secret)</td>
<td>Oral</td>
<td>Inhalation</td>
<td>Dermal</td>
</tr>
<tr>
<td>-----------</td>
<td>--------------------------</td>
<td>------</td>
<td>------------</td>
<td>--------</td>
</tr>
<tr>
<td>Aromatic urethane acrylate</td>
<td>TS</td>
<td>Data not available</td>
<td>Data not available</td>
<td>Data not available</td>
</tr>
<tr>
<td>See Section 3</td>
<td>4986-89-4</td>
<td>Data not available</td>
<td>Data not available</td>
<td>Data not available</td>
</tr>
<tr>
<td>Gans UVP-2002</td>
<td>TS</td>
<td>LD50 1340 - 2756 mg/kg bw (rat)</td>
<td>Data not available</td>
<td>LD50 2000 mg/kg bw (rat)</td>
</tr>
<tr>
<td>Gans UVP-2035</td>
<td>TS</td>
<td>LD50 5000 mg/kg bw (rat)</td>
<td>Data not available</td>
<td>LD50 2000 mg/kg bw (rat)</td>
</tr>
<tr>
<td>See Section 3</td>
<td>3524-68-3</td>
<td>Data not available</td>
<td>Data not available</td>
<td>Data not available</td>
</tr>
<tr>
<td>Reactive tertiary amine</td>
<td>TS</td>
<td>Data not available</td>
<td>Data not available</td>
<td>Data not available</td>
</tr>
<tr>
<td>Benzophenone</td>
<td>119-61-9</td>
<td>LD50 2895 mg/kg bw (mouse)</td>
<td>Data not available</td>
<td>LD50 3535 mg/kg bw (rabbit)</td>
</tr>
<tr>
<td>See Section 3</td>
<td>125455-51-8</td>
<td>Data not available</td>
<td>Data not available</td>
<td>Data not available</td>
</tr>
<tr>
<td>Glycerol, propoxylated, esters with acrylic acid</td>
<td>52408-84-1</td>
<td>LD50 2000 mg/kg bw (rat)</td>
<td>Data not available</td>
<td>LD50 2000 mg/kg bw (rabbit)</td>
</tr>
<tr>
<td>See Section 3</td>
<td>55818-57-0</td>
<td>LD0 2000 mg/kg bw (rat)</td>
<td>Data not available</td>
<td>LD0 2000 mg/kg bw (rat)</td>
</tr>
<tr>
<td>aluminium(3+) ion tris(N-nitroso-N- oxidoaniline)</td>
<td>15305-07-4</td>
<td>LD50 cut-off 500 mg/kg bw (rat)</td>
<td>Data not available</td>
<td>Data not available</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:
  o Benzophenone CAS 119-61-9: Group 2B
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP (13th Report on Carcinogens).
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

SECTION 12: ECOLOGICAL INFORMATION

(a) Ecotoxicity:
Classification of mixture: No data available
(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: 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: This mixture does not contain listed materials.
New Jersey Right to Know: This mixture does not contain listed materials.
California Proposition 65: WARNING: This product contains a chemical known to the State of California to cause cancer.
   - Benzophenone CAS 119-61-9

Canadian Environmental Protection Act:
WHMIS Classification: No data available

European Chemical Agency (ECHA): 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.