**Material Safety Data Sheet # 203.15 C**
For Printing Inks and related Materials

Date of preparation: 9-26-2013
Updated: 10-4-2013
MSDS#: 203.15 C

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### I. PRODUCT IDENTIFICATION

**Manufacturer:** Gans Ink and Supply Co, Inc.  
**Address:** 1441 Boyd Street  
Los Angeles, CA 90033  
**Emergency phone:** (323) 264-2200

**HMIS HAZARD IDENTIFICATION**

<table>
<thead>
<tr>
<th>Component</th>
<th>Health</th>
<th>Flammability</th>
<th>Reactivity</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>B</td>
</tr>
</tbody>
</table>

**Product Class:** UV Curable Lithographic Printing Ink  
**Manufacturer’s code:** UV11811, UV12218, Various  
**Trade Name:** UV Uni-Plas P871 - 877 Gold, Silver & Metallic Blends

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### II. HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>Material</th>
<th>CAS #</th>
<th>%</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epoxy Acrylate</td>
<td>Proprietary</td>
<td>35 – 45</td>
<td>Not Established</td>
</tr>
</tbody>
</table>
| Aluminum                        | 7429-90-5          | 10 – 20 | OSHA PEL Z1 5mg/m3 respirable dust  
OSHA PEL Z1 15 mg/m3 Total dust  
ACGIH TWA 1mg/m3 respirable fraction  
R11, R15 F |
| Glycerol, propoxylated esters w/ acrylic acid | 52408-84-1 | 2.5 – 10 | Not Established H319, H317, Xi |
| Trimethylolpropane Triacrylate, Ethoxylated | 28961-43-5 | 2.5 – 10 | Not Established |
| Copper                          | 7440-50-8          | 25 – 35 | OSHA PEL 0.1 mg/m3 Fume, 1mg/m3 Dust & mist  
ACGIH TWA 0.2mg/m3 fume, 1mg/m3 Dust &mist |
| Zinc                            | 7440-66-6          | 2.5 – 10 | OSHA PEL5 mg/m3 fume; 10mg/m3 dust  
ACGIH TLV 5 mg/m3 fume; 10mg/m3 dust |
| Acrylated polyol                | 13048-33-4         | 10 – 20 | Not Established                                                                 |
| Proprietary Photoinitiator      | Proprietary        | 2.5 – 10 | Not Established                                                                 |

Non-hazardous and other components below reportable levels.

- Health Hazard
- Dangerous for the environment
No permissible Exposure Limits (PEL/ TLV) have been established by OSHA or ACGIH

Refer to section 16 for explanation of Hazard & Risk statements.

### III. HEALTH HAZARD INFORMATION

#### Effects of Overexposure

**Inhalation:** Avoid breathing or inhalation of dust, fumes gas, mist and spray. Inhalation of mist or vapor may cause irritation or respiratory tract. Acute overexposure may result in irritation of the throat and lungs. Target Organs: Respiratory system.

**Skin Contact:** Avoid skin contact. Contains materials that cause moderate skin injury and/or sensitization. Prolonged or repeated contact may result in contact dermatitis which is characterized by dryness, chapping, and reddening. May aggravate pre-existing allergies or eczema.

**Eye Contact:** Avoid contact. Can cause serious eye irritation, resulting in burning sensation, tearing, swelling, and redness. May aggravate pre-existing allergies.

**Ingestion:** Harmful if swallowed. Components of this product may be absorbed into the body by ingestion. May irritate the mouth, throat, and gastrointestinal tract.

### IV. FIRST AID PROCEDURES

#### Emergency & First Aid Procedures

**Eyes:** Immediately flush eyes with large amounts of water and continue flushing for 15 minutes until irritation subsides. Retract eyelids often. Seek medical attention.

**Skin:** Remove contaminated clothing. Wash contaminated area thoroughly with mild non abrasive soap. Do not use solvents for cleaning hands or skin because solvents may increase penetration of the product into the skin. Seek medical attention. Launder contaminated clothing with an alkaline detergent before reusing. Discard all contaminated shoes, belts or other leather goods.

**Inhalation:** Remove victim from exposure. If breathing has stopped or is irregular, administer artificial respiration and supply oxygen if it is available. If victim is unconscious, remove to fresh air and seek medical attention.

**Ingestion:** Do not induce vomiting. Seek immediate medical attention. Never give anything by mouth to an unconscious person.

**Notes to Physician:** Aspiration may lead to chemical pneumonitis which is characterized by pulmonary edema and hemorrhage, and may be fatal. Signs of lung involvement include increased respiration rate, increased heart rate, and a bluish discoloration of the skin. Coughing, choking, and gagging are often noted at the time if aspiration. Gastrointestinal discomfort may develop, followed by vomiting, with risk of aspiration.

### V. FIRE AND EXPLOSION DATA

<table>
<thead>
<tr>
<th>Flash Point °F:</th>
<th>&gt; 212 °F</th>
<th>Auto-ignition Temperature °F:</th>
<th>No Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable Limits in Air</td>
<td></td>
<td>Lower Limit:</td>
<td>No Data</td>
</tr>
<tr>
<td>Extinguishing Media:</td>
<td>Use DRY sand, sodium chloride powder, graphite powder or Met-L-X-powder, special powder against metal fire.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unsuitable extinguishing media:</strong></td>
<td>Carbon dioxide (CO2) , Foam</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dousing metallic fires with water may generate hydrogen gas, an extremely dangerous explosion hazard, particularly if fire is in a confined environment.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Special Fire Fighting Procedures:** Firefighters wear self-contained breathing apparatus and complete personal protective equipment when entering confined areas. DO not get water inside containers. Do not allow run-off to enter drains, sewers or waterways. Component(s) of this product have been identified as having potential environmental concerns, should not be released into the environment.

**Unusual Fire & Explosion Hazard:** May include oxides of carbon. Substance will react with water releasing flammable, toxic or corrosive gasses and runoff. Dousing metallic fires with water may generate hydrogen gas, an extremely dangerous explosion hazard, particularly if fire is in a confined environment.
VI. ACCIDENTAL RELEASE

Steps to be taken in event of spill or release: Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Move leaking containers to ventilated area. Stop discharge, if it can be performed safely, and contain material. Cover with DRY earth, DRY sand, or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain or water. Wipe up with inert absorbent material (e.g., sand, silica gel, acid binder, universal binder, sawdust). Place in a suitable container for disposal. Do NOT flush to sewer, drains or waterways. This material contains a component that is a water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water. Component(s) of this product have been identified as having potential environmental concerns, should not be released into the environment.

VII. HANDLING AND STORAGE

Handling and Storage: Wear proper protective clothing and gloves when handling. Use only with adequate ventilation. Store containers in a cool, well-ventilated area. Store in tightly closed containers away from heat, sparks, open flame, sources of ignition. Keep from freezing. Avoid exposure to ultraviolet light and/or sunlight. Avoid prolonged contact with skin, eyes, and breathing of mist or vapor. Always wash hands and face with soap and water after handling. Do not use solvents for cleaning hands or skin, as solvents may increase the penetration of the product into the skin. When using or handling Do Not smoke.

Other Precautions: For industrial use only. Do not ingest. Consumption of food and beverages should be avoided in work areas. Always wash hands and face with soap and water before eating, drinking, and smoking.

VIII. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ventilation Requirements: If vapor or mist is generated when the material is heated or handled, adequate ventilation in accordance with good engineering practice must be provided to maintain concentrations below the specific exposure or flammable limits. Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Respirator: Respiratory protection is not required under conditions of normal use. If vapor or mist is generated when the material is heated or handled, use an organic vapor respirator with a dust and mist filter. All respirators must meet OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements. Do not use compressed oxygen in hydrocarbon atmospheres.

Skin: Wear chemical resistant gloves and protective clothing. A barrier cream is recommended to be applied on clean hands before applying gloves, not after exposure. A barrier cream alone is not recommended; as it is not impervious to chemicals. Safety showers are recommended. Handle in accordance with good industrial hygiene and safety practice.

Eye: Eye protection is required under conditions of normal use. Wear plastic face shield or splash-proof safety glasses or goggles with side shields. Eye wash stations are recommended.

IX. PHYSICAL AND CHEMICAL DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Range °F</td>
<td>&gt; 212 °F</td>
</tr>
<tr>
<td>Relative Density (H₂O = 1)</td>
<td>1.2 – 1.6</td>
</tr>
<tr>
<td>Material Density Lbs./Gal.</td>
<td>9.99 – 13.32</td>
</tr>
<tr>
<td>%Volatiles by Weight</td>
<td>0.2</td>
</tr>
<tr>
<td>VOC: lbs/gal.</td>
<td>&lt; 0.03 – g/L: 3.20</td>
</tr>
<tr>
<td>Vapor Density (Air = 1)</td>
<td>No Data</td>
</tr>
<tr>
<td>Vapor Pressure (mm Hg @ 68°F)</td>
<td>No Data</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not determined pH: Not available</td>
</tr>
<tr>
<td>Appearance/Odor</td>
<td>Liquid/Metallic Characteristic</td>
</tr>
</tbody>
</table>

X. STABILITY AND REACTIVITY INFORMATION

<table>
<thead>
<tr>
<th>Condition</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability (Thermal, Light, etc.)</td>
<td>Stable under normal circumstances and conditions of proper storage.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>Heat, flames or sparks or cold. Exposure to moisture.</td>
</tr>
<tr>
<td>Hazardous Polymerization</td>
<td>High temperatures and oxygen deficient atmosphere reduce inhibitor effectiveness and may cause polymerization, raising the temperature and pressure, possible rupturing the container.</td>
</tr>
<tr>
<td>Materials to avoid</td>
<td>Avoid acids, initiators including peroxides, strong oxidizing agents.</td>
</tr>
<tr>
<td>Hazardous Decomposition Products</td>
<td>CO₂, CO, and other oxides may be generated as products of</td>
</tr>
</tbody>
</table>
**XI. TOXICOLOGICAL INFORMATION**

**CARCINOGEN:** This product has not been identified as a carcinogen by OSHA or the National Toxicology Program (NTP), or the International Agency for Research on Cancer (IARC).

**Mutagen:** No Data  
**Teratogen:** No Data  
**Reproductive Toxicity:** No Data  

Toxicological information on the regulated components of this product as follows:

- **Glycerol, propoxylated esters w/ acrylic acid**  
  Oral (Rat) LD50 > 5000 mg/kg Literature  
  Irritation of skin / Skin Irr OECD 404 0.6 Pll 0-8 (rabbit)  
  Sensitization: No sensitizing effect

- **Acrylated polyol**  
  Acute Dermal LD50 Rabbit; 3600 mg/kg  
  Acute Oral LD50 Rat; 5 mg/kg

- **Aluminum**  
  Sensitization: Hazardous by OSHA criteria, may cause sensitization by inhalation or skin contact.  
  Local effects: Irritating to skin and respiratory system. Contact may irritate or burn eyes. Components of the product may be absorbed through skin.  
  Chronic effects: Prolonged exposure may cause chronic effects. Prolonged or repeated exposure may cause lung injury.

**XII. ECOLOGICAL INFORMATION**

- **Aluminum 7429-90-5**  
  Fish LC50 Rainbow trout, Donaldson trout (Oncorhynchus mykiss) 0.12 mg/l, 96 hours

- **Copper 744-50-8**  
  EC50 Water flea (Daphnia obtuse): 0.0076 – 0.026 mg/l 48.00 hours  
  LC50 Bony fish superclass (Osteichthytes): 0.0051 – 0.015 mg/l 96.00 hours

- **Zinc 7440-66-6**  
  LC50 Fish: 6.4 mg/l 96.00 hours

* Estimates for product may be bases on additional component data not shown

This product contains components that have been identified as having potential environmental concerns. Releases to the environment are to be avoided. As with all chemicals and products, **Do Not** allow to enter waterways, sewers, drains etc.

**XIII. DISPOSAL INFORMATION**

**Waste Disposal Method:** If discarded in its original unused form, this product does NOT exhibit the characteristics of a RCRA hazardous waste as defined under 40CFR261. Waste materials should be dumped or buried in an approved landfill, or incinerated in a suitable combustion chamber. Disposal must comply with all local, state, and federal regulations. Of the methods of disposal currently available, it is recommended that an alternative be selected according to the following order of preference, based upon environmental acceptability:

1) Recycle or rework if at all feasible  
2) Incinerate at an authorized facility  
3) Treat at an acceptable waste treatment facility.

**XIV. TRANSPORT INFORMATION**

**Flammability Classification:** Combustible
OSHA: Class III B
DOT (Ground): Not Regulated as Hazardous goods.
Special precautions: Yes
DOT Marine pollutant: DOT Regulated Marine pollutant.
IMO/IMDG (Sea): Not Regulated as Hazardous goods.
IATA/ICAO (Air): Not Regulated as Hazardous goods.

Not classified as dangerous in the meaning of transport regulations

## XV. REGULATORY INFORMATION

### SARA Title III Section 313:
This material contains a chemical(s) subject to the reporting requirements of the SARA Superfund Amendments and Reauthorization Act.

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>7429-90-5</td>
<td>1%</td>
</tr>
<tr>
<td>Copper</td>
<td>7440-50-8</td>
<td>1%</td>
</tr>
<tr>
<td>Zinc</td>
<td>7440-66-6</td>
<td>1%</td>
</tr>
</tbody>
</table>

### SARA Section 302 - Extremely Hazardous Substances (EHS):
This product does not contain any components regulated under Section 302 (40 CFR 355) as EHS.

### OSHA (Occupational Safety & Health Administration) Hazard Communication Standard, 29 CFR 1910.1200:
This product is considered to be a hazardous substance under OSHA regulations.

### SARA Section 304 – CERCLA (Comprehensive Environmental Response, Compensation and Liability Act):
This product does not contain any components regulated under Section 304 (40 CFR 302) as hazardous chemicals for emergency release notification (“CERCLA” List).

### Section 311/312 – Hazard Categories:
Pursuant to Section 311/312 of SARA Title III, the physical and health hazard categories for this product are identified below:
- Fire Hazard – NO
- Sudden Release of Pressure Hazard – NO
- Reactivity Hazard – NO
- Immediate (acute) Health Hazard – YES
- Delayed (chronic) Health Hazard – YES.

### TSCA Section 8(b) Inventory Status:
All component(s) of this product are either exempt or listed on the TSCA Inventory.

### TSCA 12(b) Export Notification (40 CFR 707, Subpt. D):
Not Regulated

### Drug Enforcement Administration (DEA), List 2 Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f) (2) and Chemical Code Number
Not Listed

### Drug Enforcement Administration (DEA), List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))
Not Regulated
DEA Exempt Chemical Mixtures Code Number
Not Regulated

International Regulations:

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory Name</th>
<th>On Inventory (yes/no)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of New and Existing Chemicals (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Substances (ENCS)</td>
<td>No</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemical List (ECL)</td>
<td>No</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>No</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>No</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

* A “Yes” indicates this product complies with the inventory requirements administered by the governing country(s).
A “No” indicates that one or more components of this product are not listed or exempt from listing on the inventory administered by the governing country(s).

U.S. State Regulations

California Proposition 65:
This product Does Not contain any chemical(s) known by the state of California to cause cancer and/or reproductive harm.

Massachusetts Right-to-Know Substance List
Aluminum  7429-90-5
Copper    7440-50-8
Zinc      7440-66-6

New Jersey Right-to-Know Listed Substance
Aluminum  7429-90-5
Copper    7440-50-8
Zinc      7440-66-6

Pennsylvania Right-to-Know Hazardous Substances
Aluminum  7429-90-5
Copper    7440-50-8
Zinc      7440-66-6

Rhode Island Right-to-Know
Aluminum  7429-90-5
Copper    7440-50-8
Zinc      7440-66-6

XVI. OTHER INFORMATION

Hazard & Risk statements
H317: May cause an allergic skin reaction
H319: Causes serious eye irritation
Xi: Irritant
R11: Highly Flammable
R15: Contact with water liberates highly flammable gases.

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.

B

Safety Glasses
Gloves