

**Material Safety Data Sheet # 191**  
**For Printing Inks and related Materials**  
**OSHA Hazard Communication Standard, 29 CFR 1910.1200**

Date of preparation: 3/17/10  
MSDS #: 191

**I. PRODUCT IDENTIFICATION**

<p>Manufacturer: Gans Ink and Supply Co, Inc.  Address: 1441 Boyd Street  Los Angeles, CA 90033</p> <p>Emergency phone: (323) 264-2200</p>	<p align="center"><b>HMIS HAZARD IDENTIFICATION</b></p> <table border="1"> <tr> <td>Health</td> <td>2</td> </tr> <tr> <td>Flammability</td> <td>1</td> </tr> <tr> <td>Reactivity</td> <td>1</td> </tr> <tr> <td>Personal Protection</td> <td>B</td> </tr> </table>	Health	2	Flammability	1	Reactivity	1	Personal Protection	B
Health	2								
Flammability	1								
Reactivity	1								
Personal Protection	B								
<p><b>Product Class:</b> UV-cure Photo-initiators for UV Inks</p>	<p><b>Manufacturer's code:</b> UVBP-2015 to UVBP-2045, inclusive; Various</p>								
<p><b>Trade Name:</b> Gans UV Photo-initiator Blends for Dark &amp; Light Colors</p>									

**II. HAZARDOUS INGREDIENTS**

Material	CAS #	%	Exposure Limits	Units
2-methyl-1 [4(methlio) phenyl]-2-(4-morpholinyl) 1-propanone	71888-10-5	18- 50	Not Established	
2-hydroxy-2-methyl-1-phenyl-propane	7473-98-5	12- 60	Not Established	
benzophenone EINECS 204-337-6	119-61-9	9- 30	Not Established	
2-benzyl-2-(dimethylamino)-1-[4-(4-morpholinyl)phenyl]-1-butanone	119313-12-1	9- 13	Not Established	
Phenylmethanone	947-19-3	9- 17	Not Established	
diphenyl(2,4,6-trimethylbenzol) phosphinoxid EINECS 278-355-8	75980-60-8	9- 13	Not Established	
Tripropylene glycol diacrylate	42978-66-5	18- 50	Not Established	

Hazard Description: Skin, eye or inhalation irritant.

**III. HEALTH HAZARD INFORMATION**

<p><b>Effects of Overexposure</b></p>
<p><b>Inhalation:</b> Avoid inhalation. Harmful if inhaled. Acute overexposure may result in irritation of the throat and lungs. Chronic exposure to high concentrations of aerosols or mists has resulted in non-specific symptoms related to the nervous system, gastrointestinal tract, and lungs.</p>
<p><b>Skin Contact:</b> Avoid skin contact. Contains materials that may cause moderate skin injury (reddening and swelling) and/or sensitization. Prolonged or repeated contact may result in contact dermatitis which is characterized by dryness, chapping, and reddening. Prolonged contact may cause blister formations (burns). Since irritation may not occur immediately, contact can go unnoticed. This condition may make the skin more susceptible to other irritants, sensitizers, and disease. Individuals with pre-existing skin disorders can be at greater risk.</p>
<p><b>Eye Contact:</b> Avoid eye contact. Moderate irritant. Can cause burning sensation, tearing, swelling, and redness. Injury may persist for several days. Individuals with pre-existing eye disorders can be at greater risk. Exposure to high concentrations of vapors may be irritating to the eyes.</p>

**Ingestion:** Do not ingest. Harmful if swallowed. Severe oral intoxication will lead to intense burning of the throat and may result in drowsiness, dullness, numbness, and headache followed by dizziness, weakness, and nausea. Loss of consciousness and convulsions followed by death may result. See *Notes to Physician* section below.

#### IV. FIRST AID PROCEDURES

Emergency & First Aid Procedures
<b>Eyes:</b> Immediately flush eyes with large amounts of water and continue flushing for 15 minutes. Seek immediate medical attention.
<b>Skin:</b> Remove contaminated clothing. Wash contaminated area thoroughly with soap and water. If redness or irritation occurs, seek medical attention.
<b>Inhalation:</b> If mist or exposure is generated when the material is heated or handled, 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.
<b>Ingestion:</b> Do not induce vomiting. Rinse mouth. Seek immediate medical attention. Never give anything by mouth to an unconscious person.
<b>Notes to Physician:</b> 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 of aspiration. Gastrointestinal discomfort may develop, followed by vomiting, with risk of aspiration.

#### V. FIRE AND EXPLOSION DATA

<b>Flash Point °F:</b> 212 F	<b>Auto-ignition Temperature °F:</b> No Data	
<b>Flammable Limits in Air (% Volume)</b>	<b>Lower Limit:</b> No Data	<b>Upper Limit:</b> No Data
<b>Extinguishing Media:</b> Use water fog, foam, CO <sub>2</sub> , or dry chemical extinguishing media. Do not use a solid water stream as it may scatter and spread fire.		
<b>Special Fire Fighting Procedures:</b> Fire fighters wear self contained breathing apparatus and full protective gear. Standard procedures for chemical fires. Cool containers exposed to heat or flame to avoid polymerization. There is a possibility of pressure build up when heated. Equipment should be thoroughly decontaminated after use.		
<b>Unusual Fire &amp; Explosion Hazard:</b> Dense smoke may be generated while burning; carbon dioxide, carbon monoxide, and other oxides may be generated as products of combustion.		

#### VI. ACCIDENTAL RELEASE

**Steps to be taken in event of spill or release:** Ensure adequate ventilation. Keep people away from and upwind of spill or leak. Soak up with inert absorbent material such as sand, silica gel, vermiculite, sawdust. Scrape up with trowel or scoop and place in a suitable container. Clean up with a suitable solvent. Do not flush into surface water, sewers or drains.

#### VII. HANDLING AND STORAGE

**Handling and Storage:** Store in containers in a cool, dry, well-ventilated area. Practice care and caution to avoid skin contact and inhalation of vapors or mists if generated. Wear gloves to avoid skin contact. Keep away from heat and all sources of ignition. 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.

**Other Precautions:** For industrial use only. Do not ingest. Avoid prolonged contact with skin, contact with eyes, and breathing of mist or vapor.

#### 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.

Personal Protective Equipment
<b>Respirator:</b> 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 be NIOSH certified. Do not use compressed oxygen in hydrocarbon atmospheres.
<b>Skin:</b> The use of neoprene gloves and impervious clothing, over parts of the body subject to exposure. Replace gloves immediately when torn or change in appearance is noticed.
<b>Eye:</b> Eye protection is required under conditions of normal use. If material is handled such that it could be splashed into eyes, wear plastic face mask or splash-proof safety glasses or goggles. Eye Wash stations are recommended.

#### IX. PHYSICAL AND CHEMICAL DATA

<b>Boiling Range °F:</b> 212 F	<b>Vapor Density (Air = 1):</b> No Data
<b>Relative Density (H<sub>2</sub>O = 1):</b> 1.10 – 1.15	<b>Vapor Pressure (mm Hg @ 70°F):</b> < 1
<b>Material Density Lbs./Gal:</b> 9.16 – 9.58	<b>Solubility in Water:</b> Insoluble
<b>% Volatile Organic Compounds (VOC) by Weight:</b> < .05	<b>Ignition Temperature:</b> Not available <b>pH:</b> Not determined
<b>VOC: lbs/gal:</b> 0.038 <b>g/L:</b> 5.75	<b>Appearance/Odor:</b> Colored Liquid

#### X. STABILITY AND REACTIVITY INFORMATION

<b>Stability (Thermal, Light, etc.):</b> Stable under recommended storage conditions.	<b>Conditions to avoid:</b> Excessive heat. DO NOT store above 100 F. Avoid sources ignition and open flame. Avoid exposure to sunlight, ultra violet light.
<b>Hazardous Polymerization:</b> High temperatures (>100°F) and oxygen deficient atmosphere reduce inhibitor effectiveness and may cause polymerization, raising the temperature and pressure, possible rupturing the container.	<b>Materials to avoid:</b> Avoid contact with polymerization initiators including peroxides, strong oxidizing agents, copper, copper alloys, carbon steel, iron, rust, nickel, cobalt, and strong bases.
<b>Hazardous Decomposition Products:</b> CO <sub>2</sub> , CO, and other oxides may be generated as products of combustion.	

#### XI. TOXICOLOGICAL INFORMATION

<b>CARCINOGEN:</b> This product has not been identified as a carcinogen by OSHA or the National Toxicology Program (NTP), or the International Agency for Research Cancer (IARC).	
<b>Mutagen:</b>	No Data
<b>Teratogen:</b>	No Data
<b>Reproductive Toxicity:</b>	No Data
Benzophenone 119-61-9 Oral LD50 1600-2895 mg/ kg (mouse) Dermal LD50 > 3500 mg/ kg (rabbit)	
2-methyl-1 [4(methlio) phenyl]-2-(4-morpholinyl) 1-propanone	71888-10-5
Acute Oral LD50 1800 mg/kg (Rats) (Rabbits) not an irritant Acute Dermal LD50 > 2000 mg/kg (Rats) (Rabbits) not an irritant	
2-hydroxy-2-methyl-1-phenyl-propane	7473-98-5
Acute Oral LD50 1694 mg/kg (Rats) (Rabbits) not an irritant Acute Dermal LD50 6930 mg/kg (Rats) (Rabbits) not an irritant	
2-benzyl-2-(dimethylamino)-1-[4-(4-morpholinyl)phenyl]-1-butanone 119313-12-1 Significance to humans unknown	
Phenylmethanone	947-19-3
LD50 Rat > 2000 mg/kg	

Diphenyl(2,4,6-trimethylbenzyl)phosphinoxid EINECS 278-355-8 Oral LD50 > 5000 mg/kg (Rat) Skin Irr OECD 404 (rabbit) Eyes Irr OECD 405 (rabbit)	75980-60-8
Tripropylene glycol diacrylate Oral LD50 6800 mg/kg Dermal LD50 > 2000 mg/kg	42978-66-5

### XII. ECOLOGICAL INFORMATION

Harmful to aquatic organisms, and fish. Do not allow product to enter drains, watercourses or streams. Releases to the environment are to be avoided.

### XIII. DISPOSAL INFORMATION

**Waste Disposal Method:** If recycling as ink is not possible, material may be incinerated or land filled at a licensed facility in accordance with local, state, and federal regulations.

### XIV. TRANSPORT INFORMATION

**Flammability Classification:**

<b>OSHA:</b>	Class III B
<b>DOT (Ground):</b>	Not Regulated
<b>IMDG (Sea):</b>	Not Regulated
<b>IATA/ ICAO (Air):</b>	Not Regulated

### XV. REGULATORY INFORMATION

**SARA Title III Section 313:**

This material Does Not contain chemicals subject to the reporting requirements of the SARA Superfund Amendments and Reauthorization Act.

**SARA Section 302 - Extremely Hazardous Substances (EHS):**

This product does not contain any components regulated under Section 302 (40 CFR 355) as EHS.

**TSCA Section 8(b) Inventory Status:**

All component(s) of this product are either exempt or listed on the TSCA Inventory.

**OSHA Hazardous Substance:** The materials in this product are classified as hazardous under OSHA regulations.

**Canadian Domestic Substance List (DSL)**

Substances are listed

**Hazard Symbols:**

**X Irritant**

**U.S. State Regulations**

**California Proposition 65:**

This product does not intentionally contain any chemicals known by the state of California to cause cancer and/or reproductive harm. Moreover, Gans Ink and Supply Co., Inc. does not routinely analyze its products for impurities which may be such chemicals.

#### **XVI. 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.