

COLOR GELS

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Section 1 - Identification of the Substance/Preparation and of the Company Undertaking

Product Name: COLOR GELS
 Chemical Name: N/A
 Family: UV GELS
 GEL Type: TYPE 4
 Manufacturer:
 MSDS Approval Date: 11/25/2006
 MSDS Prepared by: BFL
 Emergency Phone numbers:
 Information Contacts: /

Section 2 - Composition/Information on Ingredients

Chemical Identity	CAS Number	EBDEC#	INCI Name	Exposure OSHA TW/STEL	Limits ACGIH TW/STEL	Carcinogen IARC/NT/OSHA	%
Polyurethane Acrylate Oligomer	Exempt	N/E	Polyurethane Acrylate Oligomer	N/E	N/E	Not Listed	70-80
Ethylene glycol dimethacrylate	97-96-5	202-417-2	Glycol HEMA-Methacrylate	N/E	N/E	Not Listed	20-30
Hydroxycyclohexyl phenyl ketone	947-19-3	213-426-9	Hydroxycyclohexyl phenyl ketone	N/E	N/E	Not Listed	3-5
Benzoophenone	119-61-9	204-377-6	Benzoophenone	N/E	N/E	Not Listed	3-5

May Contain the Following:
 Please see Section 16 for additional compounds.
 N/A: None Emittable
 N/A: No Data Available
 N/A: Not Applicable
 Hazard Symbols: Xi Risk Phrases: R22, R36/38, R43 Safety Phrases: S18, S24/25, S36/37, S38

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

This information is based on findings from related or similar materials.

- May be slightly toxic.
- May cause moderate skin injury (reddening & swelling).
- May cause chemical burn in eye.

Potential Health Effects, Signs and Symptoms of Exposure:

Primary Route of Entry No specific information available.
Eye No specific information available. Contains materials that are essentially nonirritating, but contact may cause slight transient irritation.
Skin No specific information available. Contains materials that may cause moderate skin injury (reddening and swelling) and/or sensitization. Prolonged contact may cause blister formation (burns). Since irritation may not occur immediately, contact can go unnoticed.
Ingestion No specific information available. Contains materials that may be practically nontoxic.
Inhalation No specific information available. Low volatility makes vapor inhalation unlikely. Aerosol can be irritating.
Sub-Chronic Effects No specific information available. Limited tests showed no evidence of teratogenicity in animals. A lifetime skin painting study with mice showed no evidence of carcinogenicity.

NOTE: Refer to Section 11, Toxicological Information for Details

Section 4 - First Aid Measures

First Aid for Eye Flush with plenty of water for 15 minutes and seek medical attention.
First Aid for Skin Remove contaminated clothing and wash contact area with soap and water for 15 minutes.
First Aid for Inhalation In case of exposure to a high concentration of vapor or mist, remove person to fresh air. If breathing has stopped, administer artificial respiration and seek medical attention.
First Aid for Ingestion If appreciable quantities are swallowed, seek medical attention.

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Section 5 - Fire Fighting Measures

Flash Point(°F/C)	Flammable Limit(Low%)	Auto-Ignition Temperature(°F/C)
311°F/160°C Solventless	No Data	No Data

Methods:
 Extinguishing Media: Use carbon dioxide or dry chemical for small fires, aqueous foam or water for large fires.
 Fire Fighting Instructions: Remove all ignition sources. Wear self-contained breathing apparatus and complete personal protective equipment when entering confined areas where potential for exposure to vapors or products of combustion exists.
 Usual Hazards: High temperatures and fire conditions may cause rapid and uncontrolled polymerization which can result in explosions and the violent rupture of storage vessels or containers. Avoid the use of a stream of water to control fires since foaming may occur.

Section 6 - Accidental Release Measures

Spill or Release: Spontaneous polymerization may occur. Eliminate ignition sources. Use eye and skin protection. Place leaking container in a well ventilated area. Dilute and recover large spills. Soak up small spills with inert solids (such as vermiculite, clay) and sweep/shovel into disposal container. Wash spill area with strong detergent and water solution; rinse with water, but minimize water use during cleanup. Do not flush to sewer. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802. EU Regulations require the compilation of Directive 91/24/EEC. Dispose and report per regulatory requirements, if necessary. Please prevent walkways from entering walkways.

Section 7 - Handling and Storage

Handling: Avoid contact with skin and eyes. Avoid breathing vapor. Keep container closed when not in use. Avoid prolonged exposure to light. Remove all contaminated clothing, shoes, belts and other leather goods immediately. Incubate leather goods (including shoes). Wash contaminated clothing thoroughly before reuse. Wash skin thoroughly with soap and water after handling. Solvents should not be used to clean skin because of increased penetration potential.
Storage: Store in a cool place, away from heat and light. Store at temperatures below 100° F.
Explosion Hazard: High temperatures and fire conditions may cause rapid and uncontrolled polymerization which can result in explosions and the violent rupture of storage vessels or containers.

Section 8 - Exposure Controls / Personal Protective Equipment

Engineering Controls: Local exhaust recommended to control exposure which may result from operations generating aerosols and hot operation generating vapors.
Personal Protective Equipment:
General: To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR 1910.132), or European Standard EN166 be conducted before using this product. Provide eye wash stations and safety showers. Wear impervious clothing to prevent ANY contact with this product, such as gloves, apron, boots, or whole body suit. Nitrile rubber is better than PVC. Wear chemical splash goggles.
Eye/Face Protection: Wear impervious gloves (Neoprene).
Skin Protection: A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain limited circumstances when airborne concentrations are expected to exceed exposure limits. Protection provided by nuisance level organic vapor dust masks can be used, however the use of the respirator is limited. Follow OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149.

Section 9 - Physical and Chemical Properties

Appearance	Odor & Odor Threshold	pH	Specific Gravity	Viscosity	% Volatile
White, mobile liquid	characteristic acrylate odor	N/A	(H2O-D): 1.15	N/A	By Volume: 0.3

Boiling Point/Freezing Point	Decomposition Temperature	Octanol/Water Partitioning Coefficient Log Pow	Vapor Pressure (mm Hg) @ 20°C: 0.01	Vapor Density	Evaporation Rate	Ignition	Solubility in Water (20°C)
N/A	N/A	N/A	(mm Hg) @ 20°C: 0.01	No Data	No Data	No Data	Insoluble

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Material Safety Data Sheet

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Flash Point(°F/C)	Flammable Limit(Low%)	Auto-Ignition Temperature(°F/C)
>311°F/160°C Solventless	No Data	No Data

Section 10 - Stability and Reactivity

Stability: Normally Stable
Incompatibility (Materials to Avoid): Polymerization initiators including peroxide, strong oxidizing agents, copper, copper alloys, carbon steel, iron, rust and zinc base.
Hazardous Decomposition Products: May occur - Uncontrolled polymerization may cause rapid evolution of heat and increased pressure that could result in violent rupture of sealed storage vessels or containers.
Hazardous Polymerization: May occur - Uncontrolled polymerization may cause rapid evolution of heat and increased pressure that could result in violent rupture of sealed storage vessels or containers.
Conditions to Avoid: Storage - 100° F, exposure to light, loss of dissolved air, loss of polymerization inhibitor, contamination with incompatible materials.

Section 11 - Toxicological Information

Acute Oral Toxicity	Acute Dermal Toxicity	Acute Inhalation Toxicity	Irritation - skin	Irritation - Eye
No information available	No information available	No information available	No information available	No information available

Since this product contains a very low concentration of active components, the primary toxicological information is derived from the oligomers. Further hazardous properties cannot be excluded. The product should be handled with care when dealing with chemicals.

Sensitization	Mutagenicity	Sub-chronic Toxicity
N/A	N/A	N/A

Section 12 - Ecological Information

Acute Toxicity to Fish	Acute Toxicity to Invertebrates	Acute Toxicity to Algae	Bioaccumulation	Toxicity to Storage Bacteria
N/A	N/A	N/A	N/A	N/A

Chemical Fate Information

Biodegradability: N/A
Chemical Oxygen Demand: N/A
 To the best of our knowledge, the ecotoxicological and chemical fate properties have not been thoroughly investigated. Do not allow to enter drinking water supplies, wastewater, or soil.

Section 13 - Disposal Considerations

Non-contaminated, properly inhibited product is not a RCRA hazardous waste. It is the generator's responsibility to determine what is classified as a hazardous waste. Comply with all federal, state, and local regulations. Dispose of diluting materials and absorbent in compliance with State, Local, and Federal regulations. Residual vapors may explode on ignition; do not cut, drill, or weld on or near the container. Mix with compatible chemical which is less flammable and innocuous.

Section 14 - Transport Information

DOT (49 CFR 173)	UN (IMDG)
Proper Shipping Name: Non-Regulated Material	Proper Shipping Name: Non-Regulated Material
Identification Number: N/A	Identification Number: N/A
Major Hazard: N/A	Major Hazard: N/A
Special Precautions: N/A	Special Precautions: N/A
Emergency Response Guidelines (ERG) #: N/A	Emergency Response Guidelines (ERG) #: N/A
HAZARD (GHS): N/A	HAZARD (GHS): N/A
Other Shipping Name: N/A	Other Shipping Name: N/A
Class or Division: N/A	Class or Division: N/A
UN or ID Number: N/A	UN or ID Number: N/A
Packing Instructions: N/A	Packing Instructions: N/A
Emergency Response Guidelines (ERG) #: N/A	Emergency Response Guidelines (ERG) #: N/A
UN or ID Number: N/A	UN or ID Number: N/A
Special Precautions & Shipping/Storage: N/A	Special Precautions & Shipping/Storage: N/A
Emergency Schedule (EMS): N/A	Emergency Schedule (EMS): N/A
Other Information: Flash point > 100°C	Other Information: Flash point > 100°C

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Section 15 - Regulatory Information

US Federal Regulations	State Regulations
Clean Air Act: HAP/ODS This product contains the following hazardous air pollutants (HAP and ODS's), as defined by the U.S. Clean Air Act: • Benzophenone, CAS #119-61-9 (SOCMI)	CA Right-to-Know Law: NONE California No Significant Risk Rule: NONE
Clean Water Act: Priority Pollutant This product contains no chemicals listed under the U. S. Clean Water Act Priority Pollutant List.	MA Right-to-Know Law: Titanium Dioxide CAS #13463-67-7 NJ Right-to-Know Law: Titanium Dioxide CAS #13463-67-7 PA Right-to-Know Law: Titanium Dioxide CAS #13463-67-7 FL Right-to-Know: None MN Right-to-Know: Benzophenone, CAS #119-61-9; Titanium Dioxide CAS #13463-67-7.
FDA: Food Packaging Status This product has not been cleared by the FDA for use in food packaging and / or other applications as an indirect food additive.	International Regulations CDL: Canadian Inventory (on Canadian Transitional List) Titanium dioxide CAS # 13463-67-7 is on the DSL list. WHMIS - n/a Hydroxycyclohexyl phenyl ketone CAS #947-19-3 is on the DSL list. WHMIS - n/a Benzophenone, CAS #119-61-9 is on the DSL list. WHMIS - n/a Ethylene glycol dimethacrylate CAS #97-96-5 is on the DSL list. WHMIS - D1B
Occupational Safety and Health Act This product is considered to be a hazardous chemical under the OSHA Hazard Communication Standard. Its hazards are: • Immediate (acute) health hazard • Delayed (chronic) health hazard • Reactive hazard	FINES: European Inventory: Colored Gel: • HAZARD SYMBOLS: Xi Irritant • RISK PHRASES: R22: Harmful if swallowed, R36/38: Irritating to eyes and skin, R43: May cause sensitization by skin contact. • SAFETY PHRASES: S18: Handle and open container with care, S24/25: avoid contact with skin and eyes, S36/37: Wear suitable protective clothing and gloves, S38: in case of insufficient ventilation, wear suitable respiratory equipment.
RCRA This product is not considered to be a hazardous waste under RCRA (40 CFR 261).	
SARA Title III: Section 302 (TPQ) This product contains no chemicals regulated under Sec. 302 as extremely hazardous substances.	
SARA Title III: Section 302 (RQ) This product contains no chemicals regulated under Section 304 as extremely hazardous chemical for emergency release notification ("CERCLA" List).	
SARA Title III: Section 311-312: This product is considered hazardous under the OSHA Hazard Communication Standard and is regulated under Section 311-312 (40 CFR 170). Its hazards are: • Immediate (acute) health hazard • Delayed (chronic) health hazard • Reactive hazard	
SARA Title III: Section 313: This product contains no chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.	
TSCA Section 8(b): Inventory: This product contains chemicals listed on the TSCA inventory or otherwise complies with TSCA premanufacture notification requirements.	
TSCA Significant New Use Rule: None of the chemicals listed have a SNUR under TSCA.	

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