

Material Safety Data Sheet

Validated by Carroll Kelly on 1/9/2002.
Verified by Carroll Kelly.
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Section 1. Product Identification and Use

Product Name - Trade Name **431-9090 OPTICLEAR FULLGLOSS**

Supplier - Manufacturer **Chemcraft International Inc.,**
3950 New Walkertown Rd.
Winston-Salem, NC.
U.S.A. 27051

Telephone (336) 723-1846 Fax (336) 724-7138

In case of Emergency 1-800-424-5571

For Transport Emergency or After Hours

CHEMTREC 1-800-424-9300

Code 431-9090
Synonym OPTICLEAR FULLGLOSS
Chemical Name Not applicable.
Chemical Family Synthetic polymer in organic solvent. (Paint.)
Chemical Formula Not applicable.
Material Uses Coatings: Surface coatings and finishes.
Product Identification Number (PIN) 1263 PAINT

Section 2. Hazardous Ingredients

Exposure Limits

Name	CAS #	% by Weight	LC ₅₀ /LD ₅₀	TLV/PEL
n-Butyl acetate	123-86-4	32.9	ORAL (LD50): Acute: 14130 mg/kg [Rat]. 7100 mg/kg [Mouse]. DERMAL (LD50): Acute: 5000 mg/kg [Rabbit].	TWA: 150 STEL: 200 (ppm) from OSHA (PEL) [United States] TWA: 150 STEL: 200 (ppm) from ACGIH (TLV) [United States] [2000] TWA: 150 STEL: 200 (ppm) from NIOSH
Isobutyl alcohol	78-83-1	13.8	ORAL (LD50): Acute: 2500 mg/kg [Rat]. 3200 mg/kg [Mouse]. DERMAL (LD50): Acute: 4200 mg/kg [Rabbit].	TWA: 50 (ppb) from ACGIH (TLV) [United States] [1993]
Ethyl alcohol	64-17-5	6.91	ORAL (LD50): Acute: 7060 mg/kg [Rat].	TWA: 1000 (ppm) from OSHA (PEL) [United States] TWA: 1000 (ppm) from ACGIH (TLV) [United States] TWA: 1000 (ppm) from NIOSH
Ethyl Acetate	141-78-6	3.94	ORAL (LD50): Acute: 5600 mg/kg [Rat].	TWA: 400 from OSHA (PEL) [United States] TWA: 400 (ppm) from ACGIH (TLV) [United States] TWA: 400 (ppm) from NIOSH
Isopropanol	67-63-0	9.81	ORAL (LD50): Acute: 5045 mg/kg [Rat]. 4797 mg/kg [Dog]. 3600 mg/kg [Mouse]. DERMAL (LD50): Acute: 12800 mg/kg [Rabbit].	TWA: 1400 (mg/m ³) from NIOSH TWA: 400 STEL: 500 (ppb) from ACGIH (TLV) [United States] [1994] TWA: 983 STEL: 1230 (ppm) from ACGIH (TLV) [United States]

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n-Butanol	71-36-3	2.72	ORAL (LD50): Acute: 2510 mg/kg [Rat]. 790 mg/kg [Rat]. DERMAL (LD50): Acute: 5300 mg/kg [Rabbit]. 3400 mg/kg [Rabbit].	States] [1994] TWA: 50 CEIL: 50 (ppb)
Nitrocellulose	9004-70-0	7.69	Not available.	Not available.
Potential additional emission of formaldehyde	50-00-0*	0.29	ORAL (LD50): Acute: 100 mg/kg [Rat]. DERMAL (LD50): Acute: 270 mg/kg [Rabbit].	STEL: 2 (ppm) from OSHA (PEL) [United States] TWA: 0.75 (ppm) from OSHA (PEL) [United States] [1995]

Trace impurities and additional material names not listed above may appear in other sections of this MSDS. These materials may be listed for toxicological concerns, local compliance, or other reasons.

Section 3. Physical Data

Physical State and Appearance	Liquid.
Color	Not available.
Odor	Not available.
Taste	Not available.
Molecular Weight	Not applicable.
pH (1% soln/water)	Neutral.
Boiling Point	The lowest known value is 77°C (170.6°F) (Acetic acid, ethyl ester). Weighted average: 114.32°C (237.8°F)
Melting Point	May start to solidify at -48°C (-54.4°F) based on data for: 1,2-Benzenedicarboxylic acid, di-C(8-10)-branched alkyl esters, C9-rich. Weighted average: -87.91°C (-126.2°F)
Critical Temperature	Not available.
Specific Gravity	Weighted average: 0.92 (Water = 1)
Vapor Pressure	The highest known value is 9.7 kPa (@ 20°C) (Acetic acid, ethyl ester). Weighted average: 2.44 kPa (@ 20°C)
Vapor Density	The highest known value is 4 (Air = 1) (1,2-Benzenedicarboxylic acid, di-C(8-10)-branched alkyl esters, C9-rich). Weighted average: 3.04 (Air = 1)
Volatility	Not available.
Odor Threshold	The highest known value is 180 ppm (Ethanol) Weighted average: 29.45 ppm
Water/Oil Dist. Coeff.	The product is more soluble in oil.
Ionicity (in Water)	Not available.
Dispersion Properties	Partially dispersed in methanol, diethyl ether. Is not dispersed in cold water, hot water. See solubility in methanol, diethyl ether, n-octanol, acetone.
Solubility	Easily soluble in methanol, diethyl ether, acetone. Partially soluble in n-octanol. Insoluble in cold water, hot water.

Section 4. Fire and Explosion Hazard

The Product is:	Flammable.
Fire Hazards in Presence of Various Substances	Highly flammable in presence of open flames and sparks, of heat. Non-flammable in presence of shocks, of oxidizing materials, of reducing materials, of combustible materials, of organic materials, of metals, of acids, of alkalis, of moisture.
Fire Fighting Media and Instructions	Flammable liquid, insoluble in water. SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.
Special Remarks on Fire Hazards	Vapor may travel considerable distance to source of ignition and flash back. (Acetic acid, butyl ester)
Flash Points	The lowest known value is CLOSED CUP: -1°C (30.2°F). (Tagliabue). OPEN CUP: -0.5°C (31.1°F). (Tagliabue). (Acetic acid, ethyl ester)
Flammable Limits	The greatest known range is LOWER: 3.3% UPPER: 19% (Ethanol)

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Auto-Ignition Temperature	The lowest known value is 343°C (649.4°F) (1-Butanol).
Products of Combustion	These products are carbon oxides (CO, CO2).
Explosion Hazards in Presence of Various Substances	Highly explosive in presence of open flames and sparks. Explosive in presence of shocks. Non-explosive in presence of reducing materials, of combustible materials, of organic materials, of metals, of acids, of alkalis, of moisture.
Special Remarks on Explosion Hazards	Not available.

Section 5. Reactivity Data

Stability	The product is stable.
Decomposition products	Not available.
Conditions of Instability	Avoid contact with oxidizing agents. (Benzene, (1-methylethenyl)-)
Incompatibility with various substances	Reactive with oxidizing agents, reducing agents, acids, alkalis. Slightly reactive to reactive with organic materials, metals. Non-reactive with moisture.
Corrosivity	Non-corrosive in presence of glass, of aluminum, of zinc, of copper, of stainless steel(304), of stainless steel(316).
Special Remarks on Reactivity	Incompatible with chlorinated compounds. (2-Propanol)
Special Remarks on Corrosivity	Not available.

Section 6. Toxicological Properties

Routes of Entry	Absorbed through skin. Eye contact. Inhalation. Ingestion.
Toxicity to Animals	Acute oral toxicity (LD50): 790 mg/kg [Rat]. (1-Butanol). Acute dermal toxicity (LD50): 3400 mg/kg [Rabbit]. (1-Butanol).
Effects of Acute Exposure	Very hazardous in case of skin contact (irritant), of eye contact (irritant). Hazardous in case of skin contact (corrosive), of ingestion, of inhalation. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.
Chronic Effects on Humans	CARCINOGENIC EFFECTS: Classified A4 (Not classifiable for human or animal.) by ACGIH [Ethanol]. Classified A5 (Not suspected for human.) by ACGIH, 4 (Probably not for human.) by IARC [Acetic acid, ethyl ester]. Classified A5 (Not suspected for human.) by ACGIH, 4 (Probably not for human.) by IARC, 4 (No evidence.) by NTP, None. by OSHA [2-Propanol]. Classified A5 (Not suspected for human.) by ACGIH, 4 (Probably not for human.) by IARC, 4 (No evidence.) by NTP, None. by OSHA [1-Butanol]. Classified A2 (Suspected for human.) by ACGIH, 2A (Probable for human.) by IARC, 2 (Some evidence.) by NTP [Potential additional emission of formaldehyde]. Classified A5 (Not suspected for human.) by ACGIH, 4 (Probably not for human.) by IARC [Phosphoric acid, monobutyl ester]. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Reproductive system/toxin/male [PROVEN] [Ethanol]. Classified Reproductive system/toxin/female, Reproductive system/toxin/male [PROVEN] [Potential additional emission of formaldehyde]. The substance is toxic to blood, kidneys, the nervous system, the reproductive system, liver. Repeated or prolonged exposure to the substance can produce target organs damage.
Special Remarks on Toxicity to Animals	Formaldehyde has caused cancer in test animals at high concentrations (5-15 ppm). (Potential additional emission of formaldehyde)
Special Remarks on Chronic Effects on Humans	Passes through the placental barrier in human. (1-Propanol, 2-methyl-)
Special Remarks on Other Toxic Effects on Humans	Material is irritating to mucous membranes and upper respiratory tract. (Acetic acid, butyl ester)

Exposure Limits	Acetic acid, butyl ester
	TWA: 150 STEL: 200 (ppm) from OSHA (PEL) [United States]
	TWA: 150 STEL: 200 (ppm) from ACGIH (TLV) [United States] [2000]
	TWA: 150 STEL: 200 (ppm) from NIOSH
	1-Propanol, 2-methyl-
	TWA: 50 (ppb) from ACGIH (TLV) [United States] [1993]
	Ethanol
	TWA: 1000 (ppm) from OSHA (PEL) [United States]
	TWA: 1000 (ppm) from ACGIH (TLV) [United States]
	TWA: 1000 (ppm) from NIOSH
	Acetic acid, ethyl ester
	TWA: 400 from OSHA (PEL) [United States]
	TWA: 400 (ppm) from ACGIH (TLV) [United States]
	TWA: 400 (ppm) from NIOSH
	TWA: 1400 (mg/m ³) from NIOSH
2-Propanol	
TWA: 400 STEL: 500 (ppb) from ACGIH (TLV) [United States] [1994]	
TWA: 983 STEL: 1230 (ppm) from ACGIH (TLV) [United States] [1994]	
1-Butanol	
TWA: 50 CEIL: 50 (ppb)	
Potential additional emission of formaldehyde	
STEL: 2 (ppm) from OSHA (PEL) [United States]	
TWA: 0.75 (ppm) from OSHA (PEL) [United States] [1995]	
1,2-Benzenedicarboxylic acid, di-C(8-10)-branched alkyl esters, C9-rich	
TWA: 5 (ppm)	
Dibutyl phosphate	
TWA: 1 CEIL: 2 (ppb)	
TWA: 5 CEIL: 10 (ppm)	

Consult local authorities for acceptable exposure limits.

Section 7. Preventive Measures

Personal Protection	Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.
Small Spill	Absorb with an inert material and put the spilled material in an appropriate waste disposal.
Large Spill	Toxic flammable liquid, insoluble or very slightly soluble in water. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.
Waste Disposal	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
Precautions	Keep locked up. Keep container dry. Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/vapor/spray. Never add water to this product. Take precautionary measures against electrostatic discharges. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, reducing agents, acids, alkalis.
Storage	Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).
TDG Classification	Class 3: Flammable liquid.
PIN	1263 PAINT PG: II
Special Provisions for Transport	Not available.

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Federal and State Regulations

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Formaldehyde; XYLENE
 California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Formaldehyde
 Illinois toxic substances disclosure to employee act: Benzene, ethyl-
 New York release reporting list: Acetic acid, butyl ester; Acetic acid, ethyl ester; Benzene, 1,3-dimethyl-
 New York acutely hazardous substances: Benzene, ethyl-
 Rhode Island RTK hazardous substances: Acetic acid, ethyl ester; Benzene, ethyl-
 Pennsylvania RTK: Acetic acid, butyl ester; Ethanol; Acetic acid, ethyl ester; Isopropyl alcohol
 Florida: Acetic acid, butyl ester; Acetic acid, ethyl ester; Benzene, ethyl-; Benzene, 1,3-dimethyl-
 Minnesota: Acetic acid, butyl ester; Ethanol; Acetic acid, ethyl ester; Benzene, ethyl-
 Massachusetts RTK: Acetic acid, butyl ester; Ethanol; Acetic acid, ethyl ester; Isopropyl alcohol;
 Benzene, ethyl-; Benzene, 1,3-dimethyl-
 New Jersey: Acetic acid, butyl ester; Ethanol; Acetic acid, ethyl ester; Isopropyl alcohol; Benzene, ethyl-
 TSCA 8(b) inventory: Butyl Acetate; Ethanol; Acetic acid, ethyl ester; Isopropyl alcohol; N-Butyl Alcohol;
 Formaldehyde; XYLENE
 TSCA 5(e) substance consent order: Acetic acid, butyl ester; Acetic acid, ethyl ester
 TSCA 8(d) H and S data reporting: Benzene, ethyl-
 TSCA 12(b) annual export notification: Acetic acid, butyl ester; Acetic acid, ethyl ester
 SARA 302/304/311/312 extremely hazardous substances: Isopropyl alcohol; N-Butyl Alcohol;
 Formaldehyde
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Isobutyl alcohol: fire, delayed health hazard; Ethyl Acetate: fire, immediate health hazard; XYLENE: fire, immediate health hazard
 SARA 313 toxic chemical notification and release reporting: Isopropyl alcohol 9.81275%; N-Butyl Alcohol 2.7168%
 CERCLA: Hazardous substances.: Butyl Acetate; Isobutyl alcohol; Ethyl Acetate; N-Butyl Alcohol; XYLENE;

Other Regulations OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications

WHMIS (Canada) **CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).**
CLASS D-2A: Material causing other toxic effects (VERY TOXIC).
CLASS D-2B: Material causing other toxic effects (TOXIC).

HCS (U.S.A.) Class: Contains material which may cause cancer.
 Class: Flammable liquid having a flash point lower than 37.8°C (100°F).
 Class: Irritating substance.
 Class: Target organ effects.
 Class: Reproductive toxins.

Hazardous Material Information System (U.S.A.)	Health Hazard	* 3
	Fire Hazard	3
	Reactivity	0
	Personal Protection	h
National Fire Protection Association (U.S.A.)	Health	3
	Fire Hazard	3
	Reactivity	0
	Specific Hazard	

Section 8. First Aid Measures

Eye Contact Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

Skin Contact In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Hazardous Skin Contact Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Hazardous Inhalation	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek medical attention.
Ingestion	Do not induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.
Hazardous Ingestion	Not available.

Section 9. Preparation Information

References	-Manufacturers Material Safety Data Sheets.
Other Special Considerations	Not available.
Related Information	This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by CPR.
Preparation Information	Validated by Carroll Kelly on 1/9/2002. Verified by Carroll Kelly. Printed 10/13/2003.
Information Contact	Prepared by the Health, Safety and Environment Department, Chemcraft International Inc., P.O. Box 458, 155, Rose Glen Road North, Port Hope, ON. Canada. Phone: 905 885-6388 Fax: 905 885-5097

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