

Material Safety Data Sheet

Section 1. Product Identification and Use

Product Name - Trade Name **431-9150 OPTICLEAR**

Supplier - Manufacturer **Chemcraft International Inc.,**
155 Rose Glen Road North
P.O. Box 458
Port Hope, ON.
Canada L1A 3Z3

Telephone (905) 885-6388 Fax (905) 885-5097

In case of Emergency (905) 885-6388, (800) 263-7951

For Transport Emergency or After Hours

CANUTEC (613) 996-6666

Code 431-9150
Synonym OPTICLEAR
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	10-30	ORAL (LD50): Acute: 14130 mg/kg [Rat]. 7100 mg/kg [Mouse]. DERMAL (LD50): Acute: 5000 mg/kg [Rabbit]. 8770 mg/kg [Guinea pig].	OSHA (Canada). TWA: 150 ppm STEL: 200 ppm ACGIH (Canada, 2000). TWA: 150 ppm STEL: 200 ppm
Acetone	67-64-1	5-10	ORAL (LD50): Acute: 5800 mg/kg [Rat]. DERMAL (LD50): Acute: 20000 mg/kg [Rabbit].	ACGIH (Canada, 1997). TWA: 500 ppm STEL: 750 ppm TWA: 1188 mg/m ³ STEL: 1782 mg/m ³
Isobutyl alcohol	78-83-1	10-30	ORAL (LD50): Acute: 2500 mg/kg [Rat]. 3200 mg/kg [Mouse]. DERMAL (LD50): Acute: 4200 mg/kg [Rabbit].	ACGIH (Canada, 1993). TWA: 50 ppm
Ethyl alcohol	64-17-5	5-10	ORAL (LD50): Acute: 7060 mg/kg [Rat].	OSHA (Canada). TWA: 1000 ppm ACGIH (Canada). TWA: 1000 ppm
Isopropanol	67-63-0	5-10	ORAL (LD50): Acute: 5045 mg/kg [Rat]. 4797 mg/kg [Dog]. 3600 mg/kg [Mouse]. DERMAL (LD50): Acute: 12800 mg/kg [Rabbit].	ACGIH (Canada, 1994). TWA: 400 ppm STEL: 500 ppm TWA: 983 mg/m ³ STEL: 1230 mg/m ³
Potential additional emission of formaldehyde	50-00-0*	0.1-1	ORAL (LD50): Acute: 100 mg/kg [Rat]. DERMAL (LD50): Acute: 270 mg/kg [Rabbit].	OSHA (Canada). STEL: 2 ppm TWA: 0.75 ppm
Xylenes	1330-20-7	0.1-1	ORAL (LD50): Acute: 4300 mg/kg [Rat].	ACGIH (Canada, 1992). TWA: 100 ppm STEL: 150 ppm TWA: 434 mg/m ³ STEL: 651 mg/m ³

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.

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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 56.2°C (133.2°F) (2-Propanone). Weighted average: 110.3°C (230.5°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: -90.37°C (-130.7°F)
Critical Temperature	Not available.
Specific Gravity	Weighted average: 0.92 (Water = 1)
Vapor Pressure	The highest known value is 24.1 kPa (181 mmHg) (at 20°C) (2-Propanone). Weighted average: 7.66 kPa (57.45 mmHg) (at 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: 2.89 (Air = 1)
Volatility	Not available.
Odor Threshold	The lowest known value is 0.04 ppm (Acetic Acid, Butyl Ester) Weighted average: 23.69 ppm
Water/Oil Dist. Coeff.	The product is more soluble in octanol.
Ionicity (in Water)	Not available.
Dispersion Properties	Is not dispersed in cold water, hot water, methanol. 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, sparks and static discharge, of heat. Slightly flammable to flammable in presence of oxidizing materials.
Fire Fighting Media and Instructions	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: -18°C (-0.4°F). (T.C.C.). (2-Propanone)
Flammable Limits	The greatest known range is LOWER: 3.3% UPPER: 19% (Ethanol)
Auto-Ignition Temperature	The lowest known value is 407°C (764.6°F) (Acetic Acid, Butyl Ester).
Products of Combustion	These products are carbon oxides (CO, CO ₂).
Explosion Hazards in Presence of Various Substances	Highly explosive in presence of open flames, sparks and static discharge. Explosive in presence of shocks.
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, acids, alkalis. Slightly reactive to reactive with reducing agents, metals.
Corrosivity	Not available.

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Special Remarks on Reactivity Incompatible with chlorinated compounds. (2-Propanol)

Special Remarks on Corrosivity Corrosive to ferrous metals and alloys. (Phosphoric acid)

Section 6. Toxicological Properties

Routes of Entry Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.

Toxicity to Animals Acute oral toxicity (LD50): 2500 mg/kg [Rat]. (1-Propanol, 2-methyl-).
Acute dermal toxicity (LD50): 4200 mg/kg [Rabbit]. (1-Propanol, 2-methyl-).
Acute toxicity of the vapor (LC50): 8000 ppm 4 hour(s) [Rat]. (1-Propanol, 2-methyl-).

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. Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. 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 A5 (Not suspected for human.) by ACGIH, 4 (Probably not for human.) by IARC, None. by OSHA [2-Propanone]. Classified D (Not classifiable for human or animal.) by EPA [2-Propanone]. 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, None. by OSHA [2-Propanol]. Classified 4 (Probably not for human.) by IARC [Silica gel, pptd., cryst.-free]. Classified A2 (Suspected for human.) by ACGIH, 2A (Probable for human.) by IARC [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: Classified None. for human [2-Propanone].

DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Reproductive system/toxin/male [PROVEN] [Ethanol]. Classified Reproductive system/toxin/female, Reproductive system/toxin/male [PROVEN] [Formaldehyde].

The substance is toxic to blood, kidneys, lungs, the nervous system, the reproductive system, liver, eyes.

Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.

Special Remarks on Toxicity to Animals Formaldehyde has caused cancer in test animals at high concentrations (5-15 ppm). (Formaldehyde)

Special Remarks on Chronic Effects on Humans 0070 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 Not available.

Section 7. Preventive Measures

Personal Protection Face shield. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Chemical resistant gloves, such as Norfoil should be used when handling this product. Please consult a Glove Manufacturer for alternate choices. Boots.

Personal Protection in Case of a Large Spill Splash goggles. Full suit. Vapor respirator. Boots. Chemical resistant gloves, such as Norfoil should be used when handling this product. Please consult a Glove Manufacturer for alternate choices. 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 occupational exposure limits. 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 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. Use water spray curtain to divert vapor drift. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal.

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, 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	3	
PIN	1263 PAINT	PG: II
Special Provisions for Transport		
Federal and State Regulations	<p>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; Benzene, methyl-</p> <p>California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: Benzene, methyl-</p> <p>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</p> <p>Illinois toxic substances disclosure to employee act: Benzene, ethyl-</p> <p>New York release reporting list: Acetic Acid, Butyl Ester</p> <p>New York acutely hazardous substances: Benzene, ethyl-</p> <p>Rhode Island RTK hazardous substances: Benzene, ethyl-</p> <p>Pennsylvania RTK: Acetic Acid, Butyl Ester; Ethanol; Isopropyl alcohol; Benzene, ethyl-; Benzene, methyl-; Benzene, dimethyl-</p> <p>Florida: Acetic Acid, Butyl Ester; Benzene, ethyl-</p> <p>Minnesota: Acetic Acid, Butyl Ester; Ethanol; Benzene, ethyl-</p> <p>Massachusetts RTK: Acetic Acid, Butyl Ester; Ethanol; Isopropyl alcohol; Benzene, ethyl-</p> <p>New Jersey: Acetic Acid, Butyl Ester; Ethanol; Isopropyl alcohol; Benzene, ethyl-; Benzene, methyl-</p> <p>TSCA 8(b) inventory: Acetic Acid, Butyl Ester; Ethanol; Isopropyl alcohol; Benzene, ethyl-; Benzene, methyl-; Benzene, dimethyl-; N-Butyl Alcohol</p> <p>TSCA 5(e) substance consent order: Acetic Acid, Butyl Ester</p> <p>TSCA 8(d) H and S data reporting: Benzene, ethyl-</p> <p>TSCA 12(b) annual export notification: Acetic Acid, Butyl Ester</p> <p>SARA 302/304/311/312 extremely hazardous substances: Isopropyl alcohol; Formaldehyde; N-Butyl Alcohol</p> <p>SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Acetic Acid, Butyl Ester; Isobutyl alcohol: Fire Hazard, Delayed (Chronic) Health Hazard; 2-Propanol: Fire Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard; Benzene, ethyl-: Fire Hazard, Immediate (Acute) Health Hazard; Benzene, methyl-: Fire Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard; Benzene, dimethyl-: Fire Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard</p> <p>SARA 313 toxic chemical notification and release reporting: Isopropyl alcohol 5.99293%; Benzene, dimethyl- 0.104166%</p> <p>CERCLA: Hazardous substances.: Acetic Acid, Butyl Ester; 2-Propanone: 5000 lbs. (2268 kg); Isobutyl alcohol; Benzene, ethyl-: 1000 lbs. (453.6 kg); Benzene, methyl-: 1000 lbs. (453.6 kg); Benzene, dimethyl-: 100 lbs. (45.36 kg); N-Butyl Alcohol;</p>	
Other Regulations	OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).	
Other Classifications	WHMIS (Canada)	<p>Class B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).</p> <p>Class D-2A: Material causing other toxic effects (VERY TOXIC).</p> <p>Class D-2B: Material causing other toxic effects (TOXIC).</p>
	HCS (U.S.A.)	<p>Class: Flammable liquid having a flash point lower than 37.8°C (100°F).</p> <p>Class: Target organ effects.</p> <p>Class: Corrosive material</p>
Hazardous Material Information System (U.S.A.)	Health Hazard	* 3
	Fire Hazard	3
	Reactivity	0
	Personal Protection	

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 immediate 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 Alfreda Kowalski on 2/3/2005. Verified by Alfreda Kowalski. Printed 3/24/2005.
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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