

Material Safety Data Sheet

Section 1. Product Identification and Use

Product Name - Trade Name 431-9061 OPTICLEAR SEMI-GLOSS(E05-0015)

Supplier - Manufacturer Chemcraft International Inc.,
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Code 431-9061

Synonym OPTICLEAR SEMI-GLOSS(E05-0015)

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	15 - 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
Xylenes	1330-20-7	5 - 15	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
Isobutyl alcohol	78-83-1	5 - 15	ORAL (LD50): Acute: 2500 mg/kg [Rat]. 3200 mg/kg [Mouse]. DERMAL (LD50): Acute: 4200 mg/kg [Rabbit].	ACGIH (Canada, 1993). TWA: 50 ppm
Isopropanol	67-63-0	5 - 15	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
Ethyl Acetate	141-78-6	1 - 5	ORAL (LD50): Acute: 5600 mg/kg [Rat].	ACGIH (Canada). TWA: 400 ppm
Ethylbenzene	100-41-4	1 - 5	ORAL (LD50): Acute: 3500 mg/kg [Rat]. DERMAL (LD50): Acute: 5000 mg/kg [Rabbit].	ACGIH (Canada). TWA: 100 ppm STEL: 125 ppm
Ethylene glycol monobutyl ether	111-76-2	1 - 5	ORAL (LD50): Acute: 470 mg/kg [Rat]. 2436 mg/kg [Rat]. DERMAL (LD50): Acute: 220 mg/kg [Rabbit]. 631 mg/kg	OSHA (Canada). TWA: 25 ppm ACGIH (Canada). TWA: 25 ppm

Continued on Next Page

Ethyl alcohol	64-17-5	0.1 - 1	[Rabbit]. ORAL (LD50): Acute: 7060 mg/kg [Rat.].	OSHA (Canada). TWA: 1000 ppm ACGIH (Canada). TWA: 1000 ppm
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

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: 128.13°C (262.6°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: -84.13°C (-119.4°F)
Critical Temperature	Not available.
Specific Gravity	Weighted average: 0.93 (Water = 1)
Vapor Pressure	The highest known value is 9.7 kPa (73 mm Hg) (at 20°C) (Acetic Acid, Ethyl Ester). Weighted average: 2.03 kPa (15.23 mm Hg) (at 20°C)
Vapor Density	The highest known value is 4.1 (Air = 1) (1,2-Benzenedicarboxylic acid, di-C(8-10)-branched alkyl esters, C9-rich). Weighted average: 3.4 (Air = 1)
Volatility	Not available.
Odor Threshold	The lowest known value is 0.04 ppm (Acetic Acid, Butyl Ester) Weighted average: 2.52 ppm
Water/Oil Dist. Coeff.	The product is much more soluble in octanol.
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. 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.
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: -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: 2% Upper: 12% (2-Propanol)
Auto-Ignition Temperature	The lowest known value is 244.45°C (472°F) (Ethanol, 2-butoxy-).
Products of Combustion	These products are carbon oxides (CO, CO ₂).

Continued on Next Page

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, reducing agents, acids, alkalis. Slightly reactive to reactive with organic materials, metals.
Corrosivity	Not available.
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	Dermal contact. Eye contact. Inhalation. Ingestion.
Toxicity to Animals	Acute oral toxicity (LD50): 470 mg/kg [Rat]. (Ethanol, 2-butoxy-). Acute dermal toxicity (LD50): 220 mg/kg [Rabbit]. (Ethanol, 2-butoxy-). Acute toxicity of the gas (LC50): 450 ppm 4 hour(s) [Rat]. (Ethanol, 2-butoxy-). Acute toxicity of the vapor (LC50): 16000 ppm 4 hour(s) [Rat.]. (2-Propanol).
Effects of Acute Exposure	Hazardous in case of skin contact (permeator), of ingestion, of inhalation. Slightly hazardous in case of skin contact (corrosive). 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. Severe over-exposure can result in death.
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-Propanol]. Classified A5 (Not suspected for human.) by ACGIH, 4 (Probably not for human.) by IARC [Acetic Acid, Ethyl Ester]. 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 [Phosphoric acid, monobutyl ester]. Classified A2 (Suspected for human.) by ACGIH, 2A (Probable for human.) by IARC [Formaldehyde]. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance is toxic to blood, kidneys, lungs, the nervous system, liver, bone marrow, eye, lens or cornea. 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. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.
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	Prolonged or repeated contact with skin can cause defatting and drying of the skin resulting in skin irritation and dermatitis. Prolonged exposure to high vapour concentration can cause headache, dizziness, nausea and central nervous system depression. High level exposure to Xylene in laboratory animals, often at levels which are toxic to the mother, have affected the development of the fetus. The relevance of this to humans is not known. (Benzene, dimethyl-)
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. Gloves. Boots.
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 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. Use water spray to reduce vapors. 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, 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	3
PIN	1263 PAINT PG: II
Special Provisions for Transport	-
Federal and State Regulations	WARNING: This product contains chemical(s) known to the State of California to cause cancer, birth defects or other reproductive harm: Formaldehyde WARNING: This product contains chemical(s) known to the State of California to cause cancer.: Formaldehyde Illinois toxic substances disclosure to employee act: Benzene, ethyl- New York release reporting list: Acetic Acid, Butyl Ester; Acetic Acid, Ethyl Ester New York acutely hazardous substances: Benzene, ethyl- Rhode Island RTK hazardous substances: Acetic Acid, Ethyl Ester; Benzene, ethyl- Pennsylvania RTK: Acetic Acid, Butyl Ester; Acetic Acid, Ethyl Ester; Isopropyl alcohol; Benzene, ethyl-; Benzene, dimethyl-; Ethanol, 2-butoxy-; Ethanol Florida: Acetic Acid, Butyl Ester; Acetic Acid, Ethyl Ester; Benzene, ethyl- Minnesota: Acetic Acid, Butyl Ester; Acetic Acid, Ethyl Ester; Benzene, ethyl-; Ethanol Massachusetts RTK: Acetic Acid, Butyl Ester; Acetic Acid, Ethyl Ester; Isopropyl alcohol; Benzene, ethyl-; Ethanol New Jersey: Acetic Acid, Butyl Ester; Acetic Acid, Ethyl Ester; Isopropyl alcohol; Benzene, ethyl-; Ethanol, 2-butoxy-; Ethanol TSCA 8(b) inventory: Acetic Acid, Butyl Ester; Acetic Acid, Ethyl Ester; Isopropyl alcohol; Benzene, ethyl-; Benzene, dimethyl-; Ethylene glycol monobutyl ether; Ethanol; N-Butyl Alcohol 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 SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Acetic Acid, Butyl Ester; Acetic Acid, Ethyl Ester: Fire hazard, Immediate (Acute) Health Hazard; 2-Propanol: Fire hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard; Isobutyl alcohol: Fire hazard, Delayed (Chronic) Health Hazard; Benzene, ethyl-: Fire hazard, Immediate (Acute) Health Hazard; Benzene, dimethyl-: Fire hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard; Ethylene glycol monobutyl ether: Immediate

Continued on Next Page

(Acute) Health Hazard, Delayed (Chronic) Health Hazard
CERCLA: Hazardous substances.: Acetic Acid, Butyl Ester; Acetic Acid, Ethyl Ester; Isobutyl alcohol; Benzene, ethyl-: 1000 lbs. (453.6 kg); Benzene, dimethyl-: 100 lbs. (45.36 kg); N-Butyl Alcohol;

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-1A: Material causing immediate and serious toxic effects (VERY TOXIC). Class D-2A: Material causing other toxic effects (VERY TOXIC). Class D-2B: Material causing other toxic effects (TOXIC).
HCS (U.S.A.)	Flammable liquid Toxic Target organ effects Corrosive Material

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	2
	Fire Hazard	0
	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.

Skin Contact In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. 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 A. Davis on 8/24/2005.**

Verified by A. Davis.

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