

431-9120 OPTICLEAR

1. Product and company identification

Common name	: 431-9120 OPTICLEAR
Synonym	: OPTICLEAR
Material uses	: Coatings: Surface coatings and finishes.
Manufacturer	: Chemcraft International, Inc. 155 Rose Glen Road North Port Hope, Ontario, Canada L1A 3Z3 Ph:905-885-6388 Fax:905-885-7587
Code	: 431-9120
MSDS #	: Not available.
Validation date	: 12/30/2005.
Print date	: 1/18/2006.
Responsible name	: A. Davis
In case of emergency	: 1-613-996-6666

2. Hazards identification

Physical state	: Liquid.
Odor	: Not available.

OSHA: Standard for Occupational Exposure to Formaldehyde 29CFR 1910.1048 must be consulted before initial use of product.

Emergency overview	: Danger! MAY BE FATAL IF INHALED OR ABSORBED THROUGH SKIN. CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: BLOOD, KIDNEYS, NERVOUS SYSTEM, REPRODUCTIVE SYSTEM, LIVER. SUSPECT CANCER HAZARD. CONTAINS MATERIAL WHICH MAY CAUSE CANCER. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Risk of cancer depends on duration and level of exposure.
---------------------------	---

Routes of entry	: Dermal contact. Eye contact. Inhalation. Ingestion.
------------------------	---

Potential acute health effects

Eyes	: No known significant effects or critical hazards.
Skin	: Very toxic in contact with skin.
Inhalation	: Very toxic by inhalation.
Ingestion	: No known significant effects or critical hazards.

Potential chronic health effects	: CARCINOGENIC EFFECTS: Classified A5 (Not suspected for humans.) by ACGIH, 4 (Probably not for humans.) by IARC, None. by OSHA [2-Propanol]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [Ethanol]. Classified A5 (Not suspected for humans.) by ACGIH, 4 (Probably not for humans.) by IARC [Acetic Acid, Ethyl Ester]. Classified 4 (Probably not for humans.) by IARC, None. by OSHA [2-Propanol, 1-methoxy-]. Classified A5 (Not suspected for humans.) by ACGIH, 4 (Probably not for humans.) by IARC [Phosphoric acid, monobutyl ester]. Classified A2 (Suspected for humans.) by ACGIH, 2A (Probable for human.) by IARC [Formaldehyde]. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available.
---	--

2. Hazards identification

Medical conditions aggravated by over-exposure : Repeated or prolonged exposure to the substance can produce target organs damage.

Over-exposure signs/symptoms : Not available.

See toxicological information (section 11)

3. Composition/information on ingredients

<u>Name</u>	<u>CAS number</u>	<u>%</u>
Acetic Acid, Butyl Ester	123-86-4	30 - 50
1-Propanol, 2-methyl-2-Propanol	78-83-1	5 - 15
Ethanol	67-63-0	5 - 15
Acetic Acid, Ethyl Ester	64-17-5	5 - 15
2-Propanol, 1-methoxy-Silica	141-78-6	1 - 5
Formaldehyde	107-98-2	1 - 5
Benzene, dimethyl-	7631-86-9	1 - 5
	50-00-0*	0.1 - 1
	1330-20-7	0.1 - 1

4. First aid measures

Eye contact : Get medical attention immediately. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses.

Skin contact : Get medical attention immediately. Flush contaminated skin with plenty of water. Continue to rinse for at least 10 minutes. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing or wear gloves. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Inhalation : Get medical attention immediately. Move exposed person to fresh air. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Ingestion : Get medical attention immediately. Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Antidote information

Product/ingredient name

Antidote information

Notes to physician : Not available.

5 . Fire-fighting measures

- Flammability of the product** : Flammable.
- Products of combustion** : These products are carbon oxides (CO, CO₂). Some metallic oxides.
- Extinguishing media**
- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : Not available.
No specific hazard.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Fire Hazards in Presence of Various Substances** : Extremely flammable in the presence of the following materials or conditions: open flames, sparks and static discharge.
Highly flammable in the presence of the following materials or conditions: heat.
Slightly flammable in the presence of the following materials or conditions: oxidizing materials.
Non-flammable in the presence of the following materials or conditions: reducing materials, combustible materials and moisture.
- Explosion Hazards in Presence of Various Substances** : Highly explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and shocks and mechanical impacts.

6 . Accidental release measures

- Personal precautions** : Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment.
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
- Methods for cleaning up** : If emergency personnel are unavailable, contain spilled material. For small spills, add absorbent (soil may be used in the absence of other suitable materials), scoop up material and place in a sealable, liquid-proof container for disposal. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

7 . Handling and storage

- Handling** : Do not get in eyes or on skin or clothing. Keep container closed. Use only with adequate ventilation. Do not breathe vapor or mist. Wash thoroughly after handling.
- Storage** : Keep container tightly closed. Keep container in a cool, well-ventilated area.

8 . Exposure controls/personal protection

Product name

Acetic Acid, Ethyl Ester

Exposure limits

ACGIH TLV (United States).

TWA: 400 ppm 8 hour/hours.

ACGIH (United States).

TWA: 400 ppm

- Engineering measures** : Use only with adequate ventilation. If user operations generate dust, fumes, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal protection

- Eyes** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

8 . Exposure controls/personal protection

Skin	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory	: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Hands	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Other protection	: Not available.
Personal protective equipment (Pictograms)	:
Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

9 . Physical and chemical properties

Physical state	: Liquid.
Flash point	: 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)
Auto-ignition temperature	: The lowest known value is 287°C (548.6°F) (2-Propanol, 1-methoxy-).
Flammable limits	: The greatest known range is Lower: 3.3% Upper: 19% (Ethanol)
Color	: Not available.
Odor	: Not available.
Taste	: Not available.
Molecular weight	: Not applicable.
Molecular formula	: Not applicable.
pH	: Neutral.
Boiling/condensation point	: The lowest known value is 77°C (170.6°F) (Acetic Acid, Ethyl Ester). Weighted average: 115.09°C (239.2°F)
Melting/freezing 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: -88.05°C (-126.5°F)
Critical temperature	: Not available.
Relative density	: 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: 3.55 kPa (26.63 mm Hg) (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: 3.05 (Air = 1)
Volatility	: Not available.
Odor threshold	: The lowest known value is 0.04 ppm (Acetic Acid, Butyl Ester) Weighted average: 26.88 ppm
Evaporation rate	: The highest known value is 7.5 (Acetic Acid, Ethyl Ester) Weighted average: 1.42 compared with Butyl acetate.
VOC	: Not available.
Viscosity	: Dynamic: The highest known value is 0.73 cP (Acetic Acid, Butyl Ester)
Ionicity (in water)	: Not available.

9 . Physical and chemical properties

- Dispersibility properties** : Partially dispersible in methanol, diethyl ether.
Not dispersible 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.
- Physical/chemical properties comments** : Not available.

10 . Stability and reactivity

- Stability and reactivity** : The product is stable.
- Conditions of instability** : Avoid contact with oxidizing agents. (Benzene, (1-methylethenyl)-)
- Incompatibility with various substances** : Reactive or incompatible with the following materials: oxidizing materials, reducing materials, acids and alkalis.
Slightly reactive or incompatible with the following materials: organic materials.
- Hazardous decomposition products** : Not available.
- Hazardous polymerization** : Not available.
- Conditions of reactivity** : Extremely flammable in the presence of the following materials or conditions: open flames, sparks and static discharge.
Highly flammable in the presence of the following materials or conditions: heat.
Slightly flammable in the presence of the following materials or conditions: oxidizing materials.
Non-flammable in the presence of the following materials or conditions: reducing materials, combustible materials and moisture.
Highly explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and shocks and mechanical impacts.

11 . Toxicological information

Toxicity data

- Chronic effects on humans** : **CARCINOGENIC EFFECTS:** Classified A5 (Not suspected for humans.) by ACGIH, 4 (Probably not for humans.) by IARC, None. by OSHA [2-Propanol]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [Ethanol]. Classified A5 (Not suspected for humans.) by ACGIH, 4 (Probably not for humans.) by IARC [Acetic Acid, Ethyl Ester]. Classified 4 (Probably not for humans.) by IARC, None. by OSHA [2-Propanol, 1-methoxy-]. Classified A5 (Not suspected for humans.) by ACGIH, 4 (Probably not for humans.) by IARC [Phosphoric acid, monobutyl ester]. Classified A2 (Suspected for humans.) by ACGIH, 2A (Probable for human.) by IARC [Formaldehyde].
Contains material which causes damage to the following organs: blood, kidneys, the nervous system, the reproductive system, liver.
- Other toxic effects on humans** : Hazardous in case of ingestion, of inhalation.
Slightly hazardous in case of skin contact (permeator).
- 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)

Specific effects

11 . Toxicological information

- Carcinogenic effects** : Contains material which may cause cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenic effects** : No known significant effects or critical hazards.
- Teratogenicity / Reproductive toxicity** : No known significant effects or critical hazards.
- Sensitization**
- Ingestion** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Eyes** : No known significant effects or critical hazards.
- Skin** : No known significant effects or critical hazards.

Synergistic products : Not available.

12 . Ecological information

Ecotoxicity data

<u>Product/ingredient name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
--------------------------------	----------------	---------------	---------------

- Environmental precautions** : No known significant effects or critical hazards.
- Octanol/water partition coefficient** : The product is more soluble in octanol.
- Bioconcentration factor** : Not available.
- BOD and COD** : Not available.
- Biodegradable/OECD** : Not available.
- Mobility** : Not available.
- Products of degradation** : These products are carbon oxides (CO, CO₂) and water. Some metallic oxides.
- Toxicity of the products of biodegradation** : The products of degradation are less toxic than the product itself.
- Special remarks on the products of biodegradation** : Not available.

13 . Disposal considerations


- Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
- Waste stream** : Not available.
- RCRA classification** : Not available.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

Regulatory information	UN number	Class	PG*	Label	Additional information
TDG Classification	1263 PAINT	3	-		-

PG* : Packing group

15. Regulatory information

- WHMIS (Canada)** :
- Class B-2: Flammable liquid
 - Class D-2A: Material causing other toxic effects (Very toxic).
 - Class D-2B: Material causing other toxic effects (Toxic).
- Canadian Environmental Protection Act (CEPA): This product is on the Domestic Substances List (DSL) and is acceptable for use under the provisions of CEPA.: Acetic Acid, Butyl Ester; Isopropyl alcohol; Benzene, dimethyl-
- CEPA DSL: Acetic Acid, Butyl Ester; Isobutyl alcohol; Non-hazardous liquid resin; CR-2243; Cymel UI-19-I; Syloid C906; SDAG 1-J-1; Isopropyl alcohol; Diisononyl phthalate; Glycol Ether PM; Nitrocellulose, E27, RS 1/4; Nitrocellulose, eMV, E35, RS 1/2; Acetic Acid, Ethyl Ester
- Canadian NPRI: Benzene, ethyl-

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

EU regulations

Hazard symbol/symbols :



Risk phrases

Safety phrases

- : R24- Toxic in contact with skin.
- : S1/2- Keep locked up and out of the reach of children.
- : S36/37- Wear suitable protective clothing and gloves.
- : S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

International regulations

International lists : Australia (NICNAS): Acetic Acid, Butyl Ester

16. Other information

References : -Manufacturer's Material Safety Data Sheet.

Other special considerations : Not available.

Date of printing : 1/18/2006.

Date of issue : 12/30/2005.

Version : 4

Notice to reader

16 . Other information

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.