

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: COLLODION II

GENERAL USE: Medical Skin Coating

PRODUCT DESCRIPTION: Extremely flammable clear liquid, sweet ester odor



MANUFACTURER'S NAME

Mavidon Medical Products

DATE PREPARED: July 29, 2001

SUPERSEDES: New

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ADDRESS (NUMBER, STREET, P.O. BOX)

2105 7th Avenue North

TELEPHONE NUMBER FOR INFORMATION

(561) 585-2227

(CITY, STATE AND ZIP CODE)

COUNTRY

EMERGENCY TELEPHONE NUMBER

Lake Worth, FL 33461-

USA

Infotrac (800) 535-5053 Outside USA (352) 323-3500

DISTRIBUTOR'S NAME

Same

ADDRESS (NUMBER, STREET, P.O. BOX)

TELEPHONE NUMBER FOR INFORMATION

(CITY, STATE AND ZIP CODE)

COUNTRY

EMERGENCY TELEPHONE NUMBER

SECTION 2 - HAZARDOUS INGREDIENTS

HAZARDOUS COMPONENTS	CAS #	%	OSHA PEL		ACGIH TWA		SARA TITLE III	RQ LBS
			PPM	MG/M ³	PPM	MG/M ³		
Ethyl acetate (a,b,c)	141-78-6	85 - 95	400	1400	400		Yes	5000
Isopropyl alcohol	67-63-0	3 - 7	400	980	400			
Nitrocellulose, colloided, granular	9004-70-0	3 - 7	not established					

(a,c) See Section 15

(b) Indicates that the Resource Conservation and Recovery Act (RCRA) has determined the waste for this chemical is listed as hazardous and must be handled according to regulations in 40 CFR 260-281.

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Colorless flammable viscous liquid, potentially hazardous vapors. Can cause eye and skin irritation upon contact. Inhalation of vapors can cause anesthetic effect leading to death in poorly ventilated areas. Hazard symbols for this product - F, XI, XN

POTENTIAL HEALTH EFFECTS

INHALATION: Inhalation of mists or vapors may cause irritation to upper respiratory tract and mucous membranes.

SKIN: Skin irritant, contact with the skin will cause irritation, local redness.

EYES: This product is an eye irritant. Contact with the eyes will cause irritation.

INGESTION: May cause gastric distress, vomiting and diarrhea.

CARCINOGENICITY

NTP?

No

IARC MONOGRAPHS?

No

OSHA REGULATED?

No

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SECTION 4 - FIRST AID MEASURES

INHALATION: Remove affected person to fresh air; if symptoms persist seek medical attention.

SKIN: Remove contaminated clothing; wash affected area with soap and water; launder contaminated clothing before reuse; if irritation persists, seek medical attention.

EYES: Remove contact lenses. Flush eyes with clear running water for 15 minutes while holding eyelids open; if irritation persists, seek medical attention.

INGESTION: Give two glasses of water for dilution; DO NOT induce vomiting; seek medical attention; never give anything by mouth to an unconscious person.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT (METHOD USED)

24° F (-4.4° C) TCC

FLAMMABLE LIMITS

LEL: 2.0%

UEL: 12.0%

AUTOIGNITION TEMPERATURE:

Not determined

NFPA CLASS: **IB**

GENERAL HAZARDS: Product is flammable. Products of combustion include compounds of carbon, hydrogen and oxygen, including carbon monoxide. Vapors may cause a flash fire or ignite explosively. Vapors may travel a considerable distance to a source of ignition and flash back.

EXTINGUISHING MEDIA

Carbon dioxide, water fog, dry chemical, chemical foam

FIRE FIGHTING PROCEDURES

Firefighters must wear full facepiece self-contained breathing apparatus in positive pressure mode. Do not use solid stream of water since stream will scatter and spread fire. Fine water spray can be used to keep fire-exposed containers cool.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers can explode due to buildup of pressure when exposed to extreme heat. Do not use direct stream of water on pool fires as product may reignite on water surface. Caution - Material is flammable!

HAZARDOUS COMBUSTION PRODUCTS

Smoke, fumes, oxides of carbon

SECTION 6 - ENVIRONMENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: CAUTION - FLAMMABLE - Evacuate and ventilate area; confine and absorb into absorbent; place material into approved containers for disposal; for spills in excess of allowable limits (RQ) notify the National Response Center (800) 424 - 8802; refer to CERCLA 40 CFR 302 and SARA Title III, Section 313 40 CFR 372 for detailed instructions concerning reporting requirements.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep container closed when not in use; protect containers from abuse; protect from extreme temperatures. CAUTION - FLAMMABLE - keep away from all sources of ignition. "Empty" containers may contain residue which may form explosive vapors. Do not weld or cut near empty container that has not been professionally reconditioned. Use non-sparking tools when opening and closing containers. Maintain well ventilated work areas to minimize exposure when handling this material.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS

The use of local exhaust ventilation is recommended to control emissions near the source. Provide mechanical ventilation of confined spaces. Use explosion-proof ventilation equipment. See Section 2 for Component Exposure Guidelines.

PERSONAL PROTECTION:

RESPIRATORY PROTECTION (SPECIFY TYPE): None required; however, if misting occurs, NIOSH approved respirator capable of removing particulate from air must be worn. Refer to 29 CFR 1910.134 or European Standard EN 149 for complete regulations.

PROTECTIVE GLOVES: Neoprene or rubber gloves with cuffs.

EYE PROTECTION: Safety goggles with side shields

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Safety eyebath nearby

WORK / HYGIENIC PRACTICES: Practice safe workplace habits. Minimize body contact with this, as well as all chemicals in general.

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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

VAPOR PRESSURE (MM Hg) 76 mm Hg @ 20 ° C	VAPOR DENSITY (AIR = 1) > 1
SPECIFIC GRAVITY (WATER = 1) 0.934	EVAPORATION RATE (WATER = 1) < 1
SOLUBILITY IN WATER Slight	FREEZING POINT Not determined
pH Not determined	APPEARANCE AND ODOR Viscous colorless liquid, sweet ester odor
BOILING POINT 172° F (77.7° C)	PHYSICAL STATE Liquid
VISCOSITY Not determined	VOLATILE ORGANIC COMPOUNDS (Total VOC's) 7.4 lbs / gallon

SECTION 10 - STABILITY AND REACTIVITY

STABILITY UNSTABLE: STABLE: XXX	CONDITIONS TO AVOID: Extreme temperatures, open flames, sparks
INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizers, strong acids	
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Decomposition will not occur if handled and stored properly. In case of a fire, oxides of carbon, hydrocarbons, fumes, and smoke may be produced.	
HAZARDOUS POLYMERIZATION MAY OCCUR: WILL NOT OCCUR: XXX	CONDITIONS TO AVOID: None

SECTION 11 - TOXICOLOGICAL INFORMATION

Hazardous Ingredients	%	CAS #	LD50 of Ingredient (Specify Species and Route)	LC50 of Ingredient (Specify Species)
Ethyl acetate (a,b,c)	85 - 95	141-78-6	6100 mg/kg Oral - rat	45,000 mg / kg / 2H Inhalation - mouse
Isopropyl alcohol	3 - 7	67-63-0	5840 mg / kg Oral - rat	22,500 ppm / 4H Inhalation - rat
Nitrocellulose, colloided, granular	3 - 7	9004-70-0	> 5000 mg / kg Oral - rat	Not established

SECTION 12 - ECOLOGICAL INFORMATION

No data are available on the adverse effects of this material on the environment. Neither COD nor BOD data are available. Based on the chemical composition of this product it is assumed that the mixture can be treated in an acclimatized biological waste treatment plant system in limited quantities. However, such treatment should be evaluated and approved for each specific biological system. None of the ingredients in this mixture are classified as a Marine Pollutant.

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose of in accordance with Local, State, and Federal Regulations. This product may produce concentrated hazardous vapors or fumes in a disposal container creating a dangerous environment. Refer to "40 CFR Protection of Environment Parts 260 - 299" for complete waste disposal regulations for ignitable materials. Consult your local, state, or Federal Environmental Protection Agency before disposing of any chemicals. Do not flush to sanitary sewer or waterway.

SECTION 14 - TRANSPORT INFORMATION

PROPER SHIPPING NAME: Ethyl acetate mixture

HAZARD CLASS / Pack Group: 3 / II

REFERENCE: 49 CFR 173.150, .202, .242

IDENTIFICATION NUMBER: UN 1993

LABEL: FLAMMABLE LIQUID

IATA HAZARD CLASS / Pack Group: 3 / II

IMDG HAZARD CLASS: 3 / II

RID/ADR Dangerous Goods Code: 3 (3B)

Canadian TDG Class / Division: 3.2

HAZARD SYMBOLS: F

Note: Transportation information provided is for reference only. Client is urged to consult CFR 49 parts 100 - 177, IMDG, IATA, EC, Canadian TDG, and United Nations TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

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SECTION 15 - REGULATORY INFORMATION

TSCA (Toxic substance Control Act)

Components of this product are listed on the TSCA Inventory.

SARA TITLE III (Superfund Amendments and Reauthorization Act)

311/312 Hazard Categories

Acute health, flammable, skin irritant, eye irritant

313 Reportable Ingredients:

(a) A "Yes" in the SARA TITLE III column in Section 2 indicates a toxic chemical subject to annual reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

CERCLA (Comprehensive Response Compensation and Liability Act)

(c) The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) has notification requirements for releases or spills to the environment of the Reportable Quantity (RQ for this mixture = 5,000 lbs) or greater amounts, according to 40 CFR 302.

CPR (Canadian Controlled Products Regulations)

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations

IDL (Canadian Ingredient Disclosure List)

Components of this product listed on the Canadian Ingredient Disclosure List are shown in Section 2.

EINECS (European Inventory of Existing Commercial Chemical Substances)

Components of this product are on the European Inventory of Existing Commercial Chemical Substances

EC Risk Phrases

- R11 Highly flammable
- R20 Harmful by inhalation
- R36 Irritating to eyes
- R38 Irritating to skin.

EC Safety Phrases

- S16 Keep away from sources of ignition
- S23 Do not breathe vapor
- S25 Avoid contact with eyes
- S28 After contact with skin, wash immediately with plenty of soap and water
- S29 Do not empty into drains

SECTION 16 - OTHER INFORMATION

No specific notes.

HMIS HAZARD RATINGS

HEALTH	1	0 = INSIGNIFICANT	3 = HIGH
FLAMMABILITY	3	1 = SLIGHT	4 = EXTREME
REACTIVITY	0	2 = MODERATE	

PERSONAL PROTECTIVE EQUIPMENT B Safety Glasses, Gloves

REVISION SUMMARY:

This MSDS has been revised in the following sections:
No revisions available

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The information contained herein is believed to be accurate but is not warranted to be so. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed.