SAFETY DATA SHEET

Issue Date 21-Feb-2011 **Revision Date** 07-Jan-2013 **Version** 1

1. IDENTIFICATION

Product Identifier
Product Name Collodion A10

Other means of identification
SDS # MD0006

UN/ID No UN1993
Product Code MD0006

Recommended use of the chemical and restrictions on use
Recommended Use Medical skin coating.

Details of the supplier of the safety data sheet
Supplier Address
Mavidon Medical Products
1820 2nd Avenue North
Lake Worth, FL 33461 USA

Emergency telephone number
Company Phone Number 561-585-2227
Emergency Telephone INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Classification

Serious eye damage/eye irritation	Category 2
Specific target organ toxicity (single exposure)	Category 3
Flammable liquids	Category 2

Signal word
Danger

Hazard statements
Causes severe eye irritation
May cause respiratory irritation. May cause drowsiness or dizziness
Highly flammable liquid and vapor

Appearance Colorless liquid **Physical state** liquid **Odor** Mild

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Wear protective gloves/protective clothing/eye protection/face protection
Keep cool

Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician
In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage
Store in a well-ventilated place. Keep container tightly closed
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
May be harmful in contact with skin
Other Information
Not Applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%	Trade Secret
Acetone	67-64-1	84-95	*
Isopropyl alcohol	67-63-0	3-6	*
Cellulose nitrate	9004-70-0	7-10	*

4. FIRST AID MEASURES

First aid measures

General advice Provide this SDS to medical personnel for treatment.

Inhalation Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops or persists.

Ingestion Drink 1 or 2 glasses of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.

Skin Contact Remove contaminated clothing and shoes. Wash with soap and water. Wash contaminated clothing before reuse. If irritation or redness develops, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms May cause irritation to the mucous membranes and upper respiratory tract. May cause skin and eye irritation. Abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Foam, Dry Chemical, Carbon Dioxide.

Unsuitable Extinguishing Media Not determined.

Specific hazards arising from the chemical
Not determined.

Sensitivity to Static Discharge Flammable mixtures of this product are readily ignited even by static discharge.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Remove all sources of ignition.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so. Remove all sources of ignition. Absorb spill with inert material (e.g. dry sand or earth). For small spills, absorb on polypads or other suitable non-reactive absorbent materials.

Methods for cleaning up Use clean non-sparking tools to collect absorbed material. Dispose of contents/container to an approved waste disposal plant. Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid contact with skin, eyes or clothing. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Take precautionary measures against static discharges. Wear appropriate personal protective equipment. Keep container tightly closed. Ground/bond container and receiving equipment. Use spark-proof tools and explosion-proof equipment. Wash face, hands and any exposed skin thoroughly after handling. Use only outdoors or in a well-ventilated area.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Store locked up. Keep tightly closed in original container.

Packaging materials Keep in original container.

Incompatible materials Oxidizers. Concentrated nitric and sulfuric acids.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Acetone 67-64-1	STEL: 750 ppm TWA: 500 ppm	TWA: 1000 ppm TWA: 2400 mg/m³ (vacated) TWA: 750 ppm (vacated) TWA: 1800 mg/m³ (vacated) STEL: 2400 mg/m³ The acetone STEL does not apply to the cellulose acetate fiber industry. It is in effect for all other sectors (vacated) STEL: 1000 ppm	IDLH: 2500 ppm TWA: 250 ppm TWA: 590 mg/m³
Isopropyl alcohol 67-63-0	STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m³ (vacated) TWA: 400 ppm (vacated) TWA: 980 mg/m³ (vacated) STEL: 500 ppm (vacated) STEL: 1225 mg/m³	IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m³ STEL: 500 ppm STEL: 1225 mg/m³

Appropriate engineering controls

Engineering Controls Ventilation must be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the SDS.

Individual protection measures, such as personal protective equipment

Eye/face protection Chemical safety goggles/faceshield.

Skin and body protection Wear suitable protective clothing.

Respiratory protection Ensure adequate ventilation, especially in confined areas.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state liquid
Appearance Colorless liquid
Color Colorless
Odor Mild
Odor threshold Not determined

Property	Values	Remarks • Method
pH	Not determined	
Melting point/freezing point	-95 °C / -139 °F	
Boiling point/boiling range	55.5 °C / 132 °F	
Flash point	> -20 °C / > -4 °F	
Evaporation rate	7.7	(butyl acetate = 1)
Flammability (solid, gas)	Not determined	

Flammability Limits in Air		
Upper flammability limits	12.8%	
Lower flammability limit	2.5%	
Vapor pressure	.53 atm	@ 68°F (20C)
Vapor density	2.0	(Air=1)
Specific Gravity	.8285	(1=water)
Water solubility	Soluble in water	
Solubility in other solvents	Not determined	
Partition coefficient	Not determined	
Autoignition temperature	Not determined	
Decomposition temperature	Not determined	
Kinematic viscosity	Not determined	
Dynamic viscosity	Not determined	
Explosive properties	Not determined	
Oxidizing properties	Not determined	

Other Information

10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid
Keep out of reach of children. Incompatible materials. Keep away from heat, sparks and open flame.

Incompatible materials
Oxidizers. Concentrated nitric and sulfuric acids.

Hazardous Decomposition Products
If heated to decomposition, CO and CO2 may be produced.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation May cause irritation of respiratory tract.

Eye contact Causes severe eye irritation.

Skin Contact Avoid contact with skin.

Ingestion May cause gastrointestinal irritation, nausea, diarrhea, and vomiting.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50

Acetone 67-64-1	5800 mg/kg (Rat)	-	-
Cellulose nitrate 9004-70-0	> 5 g/kg (Rat)	-	-
Isopropyl alcohol 67-63-0	4396 mg/kg (Rat)	12800 mg/kg (Rat) 12870 mg/kg (Rabbit)	72.6 mg/L (Rat) 4 h

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity Isopropyl Alcohol (IPA) is an IARC Monograph Group 3 chemical. IPA is a Group 1 when manufactured by the strong-acid process. Cellulose nitrate is considered an IARC 2A carcinogen when used in manufacturing of some paints.

Chemical Name	ACGIH	IARC	NTP	OSHA
Isopropyl alcohol 67-63-0		Group 1 Group 3		X
Cellulose nitrate 9004-70-0		Group 2A		X

IARC (International Agency for Research on Cancer)
Group 3 IARC components are "not classifiable as human carcinogens"

Numerical measures of toxicity- Product
Not determined

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 5663 mg/kg
ATEmix (dermal) 2500 mg/kg
ATEmix (inhalation-gas) 25000 mg/l
ATEmix (inhalation-dust/mist) 72.6 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Acetone 67-64-1		4.74 - 6.33: 96 h Oncorhynchus mykiss mL/L LC50 6210 - 8120: 96 h Pimephales promelas mg/L LC50 static 8300: 96 h Lepomis macrochirus mg/L LC50	EC50 = 14500 mg/L 15 min	10294 - 17704: 48 h Daphnia magna mg/L EC50 Static 12600 - 12700: 48 h Daphnia magna mg/L EC50
Isopropyl alcohol 67-63-0	>1000: 72 h Desmodesmus subspicatus mg/L EC50 >1000: 96 h Desmodesmus subspicatus mg/L EC50	11130: 96 h Pimephales promelas mg/L LC50 static 9640: 96 h Pimephales promelas mg/L LC50 flow-through >1400000: 96 h Lepomis macrochirus µg/L LC50		13299: 48 h Daphnia magna mg/L EC50

Persistence and degradability
Material is readily biodegradable.

Bioaccumulation
Not determined.

Mobility
Not determined.

Chemical Name	Partition coefficient
Acetone 67-64-1	0
Isopropyl alcohol 67-63-0	0.05

Other adverse effects Not determined

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Acetone 67-64-1		Included in waste stream: F039		U002

Chemical Name	California Hazardous Waste Status
Acetone 67-64-1	Ignitable
Isopropyl alcohol 67-63-0	Toxic Ignitable
Cellulose nitrate 9004-70-0	Ignitable Reactive

14. TRANSPORT INFORMATION

DOT
- **UN/ID No** UN1993
- **Proper shipping name** Flammable liquids, n.o.s. (acetone, isopropyl alcohol)
- **Hazard Class** 3
- **Packing Group** II
- **Reportable Quantity (RQ)** 5000 lbs (Acetone)

IATA
- **UN/ID No** UN1993
- **Proper shipping name** Flammable liquids, n.o.s. (acetone, isopropyl alcohol)
- **Hazard Class** 3
- **Packing Group** II

IMDG
- **UN/ID No** UN1993
- **Proper shipping name** Flammable liquids, n.o.s. (acetone, isopropyl alcohol)

Hazard Class	3
Packing Group	II

15. REGULATORY INFORMATION

International Inventories

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Isopropyl alcohol - 67-63-0	67-63-0	3-6	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Acetone 67-64-1	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

US State Regulations

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Acetone 67-64-1	X	X	X
Cellulose nitrate 9004-70-0	X	X	X
Isopropyl alcohol 67-63-0	X	X	X

U.S. EPA Label Information

16. OTHER INFORMATION

NFPA	**Health hazards**	**Flammability**	**Instability**	**Special Hazards**
	2	3	2	Not determined
HMIS	**Health hazards**	**Flammability**	**Physical hazards**	**Personal protection**
	2	3	2	B- Safety Glasses, Gloves

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new format

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet