acc. to OSHA HCS

1 Identification

· Product identifier

· Trade name: Collodium 5%

· Article number: 104773

- · Application of the substance / the mixture Additive for cosmetic or pharmaceutic preparations
- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Fagron Inc

2400 Pilot Knob Road St. Paul, MN 55120 www.fagron.us QA@fagron.us

· Information department:

Tel.: 800-423-6967 Fax: 800-339-1596

· Emergency telephone number:

Emergency Telephone: US: 1-800-535-5053

International: 1-352-323-3500

2 Hazard(s) identification

· Classification of the substance or mixture

Flammable Liquids 1 H224 Extremely flammable liquid and vapor.

Acute Toxicity - Oral 4 H302 Harmful if swallowed. Carcinogenicity 1A H350 May cause cancer.

Specific Target Organ Toxicity - Single Exposure H336 May cause drowsiness or dizziness.

- · Label elements
- GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms







GHS02 GHS07 GHS08

- Signal word Danger
- · Hazard-determining components of labeling:

diethyl ether ethanol

· Hazard statements

Extremely flammable liquid and vapor.

Harmful if swallowed.

May cause cancer.

May cause drowsiness or dizziness.

Precautionary statements

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Ground/bond container and receiving equipment.

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Use explosion-proof electrical/ventilating/lighting/equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Call a poison center/doctor if you feel unwell.

Rinse mouth.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF exposed or concerned: Get medical advice/attention.

In case of fire: Use CO2, powder or water spray to extinguish.

Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- Classification system:
- NFPA ratings (scale 0 4)



Health = 0Fire = 4Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = *1Fire = 4

- · Other hazards
- Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · **vPvB**: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · Description: Mixture of the substances listed below with nonhazardous additions.

 Dangerous co 	· Dangerous components:			
CAS: 60-29-7	diethyl ether	50–≤100%		
CAS: 64-17-5	ethanol	25–≤50%		

4 First-aid measures

- · Description of first aid measures
- General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact:

Immediately rinse with water.

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(Contd. of page 2)

If skin irritation continues, consult a doctor.

· After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- · After swallowing: Seek immediate medical advice.
- Information for doctor:
- · Most important symptoms and effects, both acute and delayed

Dizziness

Nausea

· Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
- · Suitable extinguishing agents:

Use fire fighting measures that suit the environment.

Alcohol resistant foam

Carbon dioxide

Fire-extinguishing powder

Water spray

Water haze

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

In case of fire, the following can be released:

Carbon monoxide (CO)

- Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Keep away from ignition sources

Use respiratory protective device against the effects of fumes/dust/aerosol.

Environmental precautions:

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

· Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

Dispose of the collected material according to regulations.

Dispose contaminated material as waste according to item 13.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

Protective Action Criteria for Chemicals

· PAC-1:		
CAS: 60-29-7 diethyl ether	500 ppm	
CAS: 64-17-5 ethanol	1,800 ppm	
(Contd. on page		



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	(Contd. of page 3)				
· PAC-2:					
CAS: 60-29-7	diethyl ether	3200* ppm			
CAS: 64-17-5	ethanol	3300* ppm			
· PAC-3:					
CAS: 60-29-7	diethyl ether	19000*** ppm			
CAS: 64-17-5	ethanol	15000* ppm			

7 Handling and storage

- · Handling:
- Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Keep away from heat and direct sunlight.

Open and handle receptacle with care.

Prevent formation of aerosols.

· Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: Store in a cool location.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions:

Keep receptacle tightly sealed.

Store receptacle in a well ventilated area.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

· Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters

· Com	nponents with limit values that require monitoring at the workplace:				
CAS: 60-29-7 diethyl ether					
PEL	Long-term value: 1200 mg/m³, 400 ppm				
TLV	Short-term value: 500 ppm Long-term value: 400 ppm				
CAS: 64-17-5 ethanol					
PEL	Long-term value: 1900 mg/m³, 1000 ppm				
REL	Long-term value: 1900 mg/m³, 1000 ppm				
TLV	Short-term value: 1000 ppm A3				

- Additional information: The lists that were valid during the creation were used as basis.
- Exposure controls
- Personal protective equipment:
- General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

(Contd. on page 5)



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(Contd. of page 4)

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

Breathing equipment:

Suitable respiratory protective device recommended.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Tightly sealed goggles

· Body protection: Protective work clothing

9 Physical and chemical properties

- · Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Liquid Color: Yellowish Ether-like · Odor: · Odor threshold: Not determined. · pH-value: Not determined. · Change in condition Melting point/Melting range: Undetermined. **Boiling point/Boiling range:** 35°C (95°F) · Flash point: -40°C · Flammability (solid, gaseous): Flammable. Decomposition temperature: Not determined. · Auto igniting: Product is not selfigniting.

(Contd. on page 6)





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	(Contd. of pa
Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
Explosion limits:	
Lower:	1.7 Vol %
Upper:	36 Vol %
Vapor pressure:	Not determined.
Density at 20°C (68°F):	0.765-0.775 g/cm³ (6.38393-6.46738 lbs/gal)
Relative density	Not determined.
Vapor density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with	
Water:	Fully miscible.
Partition coefficient (n-octanol/wa	ater): Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Solvent content:	
Organic solvents:	>90.0 %
VOC content:	>90.00 %
	>688.5–697.5 g/l / >5.75–5.82 lb/gal
· Other information	No further relevant information available.

10 Stability and reactivity

- $\cdot \ \textbf{Reactivity} \ \ \text{No further relevant information available}.$
- · Chemical stability
- $\cdot \mbox{ Thermal decomposition / conditions to be avoided:} \\$

No decomposition if used according to specifications.

· Possibility of hazardous reactions

Reacts with acids, alkalis and oxidizing agents.

Flammable.

- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: Carbon monoxide and carbon dioxide

11 Toxicological information

- Information on toxicological effects
- · Acute toxicity:

· LD/LC50 values that are relevant for classification:							
ATE (Acu	ATE (Acute Toxicity Estimate)						
Oral	LD50	<2025 mg/kg (rat)					
CAS: 60-2	CAS: 60-29-7 diethyl ether						
Oral	LD50	1215 mg/kg (rat)					
Inhalative	LC50/4 h	73000 mg/l (rat)					
CAS: 64-17-5 ethanol							
Oral	LD50	7060 mg/kg (rat)					
		(Contd	l. on page 7)				



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Inhalative LC50/4 h 20000 mg/l (rat)

- · Primary irritant effect:
- · on the eye: Irritating effect.
- · Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Irritant

- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

CAS: 64-17-5 ethanol

1

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Water hazard class 3 (Self-assessment): extremely hazardous for water

Danger to drinking water if even extremely small quantities leak into the ground.

- Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · **vPvB**: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packagings:
- · **Recommendation:** Disposal must be made according to official regulations.
- · Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

- · UN-Number
- · DOT, IMDG, IATA

UN1993

(Contd. on page 8)

USA



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Trade name: Collodium 5%

(Contd. of page 7)

· UN proper shipping name

• **DOT** Flammable liquids, n.o.s. (Diethyl ether, Ethanol)

· IMDG FLAMMABLE LIQUID, N.O.S. (DIETHYL ETHER

(ETHYL ETHER), ETHANOL (ETHYL

ALCOHOL))

IATA Flammable liquid, n.o.s. (DIETHYL ETHER

(ETHYL ETHER), ETHANOL)

· Transport hazard class(es)

· DOT



· Class 3 Flammable liquids

· Label 3

· IMDG, IATA



· Class 3 Flammable liquids

· Label

· Packing group

· DOT, IMDG, IATA

• Environmental hazards: Not applicable.

· Special precautions for user Warning: Flammable liquids

· Hazard identification number (Kemler code): 33

· EMS Number: F-E,S-E

· Stowage Category E

· Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code Not applicable.

· Transport/Additional information:

· IMDG

· Limited quantities (LQ) 0

• Excepted quantities (EQ) Code: E3

Maximum net quantity per inner packaging: 30

ml

3

Maximum net quantity per outer packaging: 300

mI

· UN "Model Regulation": UN 1993 FLAMMABLE LIQUID, N.O.S.

(DIETHYL ETHER (ETHYL ETHER), ETHANOL

(ETHYL ALCOHOL)), 3, I

15 Regulatory information

 \cdot Safety, health and environmental regulations/legislation specific for the substance or mixture

No further relevant information available.

(Contd. on page 9)





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Trade name: Collodium 5%

(Contd. of page 8)

· Sara

Section 355 (extremely hazardous substances):

None of the ingredients is listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

Hazardous Air Pollutants

None of the ingredients is listed.

Proposition 65

Chemicals known to cause cancer:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

CAS: 64-17-5 ethanol

· Carcinogenic categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value)

CAS: 64-17-5 ethanol

A3

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing SDS:

Fagron US

Quality Assurance

- · Contact: QA@fagron.us
- · Date of preparation / last revision 05/11/2023

Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, ÉU) LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety



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Safety Data Sheet

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Printing date 05/11/2023 Reviewed on 05/11/2023

Trade name: Collodium 5%

(Contd. of page 9)

OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit

Flammable Liquids 1: Flammable liquids – Category 1
Acute Toxicity - Oral 4: Acute toxicity – Category 4
Carcinogenicity 1A: Carcinogenicity – Category 1A
Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3

* Data compared to the previous version altered.

USA -

