Safety Data Sheet

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision Date: 29-Aug-2023
Version 1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

SDS # MD0002/MD0014-EU

Product Name Collodion, Collodion HV

Other means of identification

Pure substance/mixture Mixture

Contains Ethyl ether, Alcohol

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Medical skin coating Special effects skin coating

Uses Advised Against No information available

1.3. Details of the supplier of the safety data sheet

Supplier
Mavidon Medical Products
110 Commercial Blvd
Flat Rock NC 28731

For further information, please contact

Contact Point	800-654-0385
Email Address	vendors@mavidon.com

1.4. Emergency telephone number

Emergency Telephone (24 hr)	INFOTRAC 1-352-323-3500 (International) 1-800-535-5053 (North America)

Emergency Telephone Number - §45 - (EC)1272/2008	
Europe	**112**

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Flammable liquids	Category 2 - (H225)
Acute toxicity - Oral	Category 4 - (H302)
Specific target organ toxicity — single exposure	Category 3 - (H336)
Category 3 Narcotic effects	
Chronic aquatic toxicity	Category 2 - (H411)

2.2. Label elements

Contains Ethyl ether, Alcohol

Signal word
Danger

Hazard statements

H302 - Harmful if swallowed
H336 - May cause drowsiness or dizziness
H411 - Toxic to aquatic life with long lasting effects

H225 - Highly flammable liquid and vapour

EUH019 - May form explosive peroxides
EUH066 - Repeated exposure may cause skin dryness or cracking

Precautionary Statements - EU (§28, 1272/2008)
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P233 - Keep container tightly closed
P235 - Keep cool
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical/ ventilating/ lighting/ equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray
P264 - Wash face, hands and any exposed skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area
P273 - Avoid release to the environment
P281 - Use personal protective equipment as required
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/ shower
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P330 - Rinse mouth
P370 + P378 - In case of fire: Use CO2, dry chemical, or foam to extinguish
P391 - Collect spillage
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
P501 - Dispose of contents/ container to an approved waste disposal plant

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.

Additional information
This product requires tactile warnings if supplied to the general public.

2.3. Other hazards

No information available.

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Ethyl ether 60-29-7	65-75	No data available	(603-022-00-4) 200-467-2	Acute Tox. 4 (H302) STOT SE 3 (H336) Flam. Liq. 1 (H224) (EUH066) (EUH019)	-	-	-
Ethyl Alcohol 64-17-5	20-30	No data available	(603-002-00-5) 200-578-6	Flam. Liq. 2 (H225)	-	-	-
Cellulose nitrate 9004-70-0	5-10	No data available	(603-037-00-6)	Expl. 1.1 (H201)	-	-	-

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Ethyl ether 60-29-7	1215	20000	Inhalation LC50 Rat 32000 ppm 4 h (Source: NLM_HSDB)	32000 97.0078	Inhalation LC50 Rat 32000 ppm 4 h (Source: NLM_HSDB)
Ethyl Alcohol 64-17-5	7060	No data available	Inhalation LC50 Rat 116.9 mg/L 4 h (males, vapor, Source: ECHA_API); Inhalation LC50 Rat 133.8 mg/L 4 h (females, vapor, Source: ECHA_API) 116.9 133.8	116.9 133.8	Inhalation LC50 Rat 116.9 mg/L 4 h (males, vapor, Source: ECHA_API); Inhalation LC50 Rat 133.8 mg/L 4 h (females, vapor, Source: ECHA_API)
Cellulose nitrate 9004-70-0	5000	No data available	No data available	No data available	No data available

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

Additional Information
Substances without a classification are included, because they have established occupational exposure limits

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice — Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.

Inhalation — Remove to fresh air. IF exposed or concerned: Get medical advice/attention.

Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Call a doctor.
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms	May cause redness and tearing of the eyes. Burning sensation. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors	Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media	Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Hazardous combustion products	Under combustion conditions, oxides of phosphorus, calcium, sodium sulfur and zinc will form. Oxides of zinc.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in the immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.
Other information	Ventilate the area. Refer to protective measures listed in Sections 7 and 8.
For emergency responders	Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions	Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

Methods for containment	Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapour suppressing foam may be used to reduce vapours. Dyke far ahead of spill to collect run-off water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.
Methods for cleaning up	Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections	See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling	Use personal protection equipment. Avoid breathing vapours or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. In case of insufficient ventilation, wear suitable respiratory equipment.
General hygiene considerations	Do not eat, drink or smoke when using this product. Contaminated work clothing must not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed 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). Keep in properly labelled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Keep out of the reach of children. Store locked up.

Storage class (TRGS 510) LGK 3.

7.3. Specific end use(s)

Specific Use(s)
Medical skin coating. Special effects skin coating.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Ethyl ether 60-29-7	TWA: 100 ppm TWA: 308 mg/m³ STEL: 200 ppm STEL: 616 mg/m³	TWA: 100 ppm TWA: 300 mg/m³ STEL 200 ppm STEL 600 mg/m³	TWA: 100 ppm TWA: 308 mg/m³ STEL: 200 ppm STEL: 616 mg/m³	STEL: 200 ppm STEL: 616 mg/m³ TWA: 100 ppm TWA: 308 mg/m³	TWA: 100 ppm TWA: 308 mg/m³ STEL: 200 ppm STEL: 616 mg/m³
Ethyl Alcohol 64-17-5	-	TWA: 1000 ppm TWA: 1900 mg/m³ STEL 2000 ppm STEL 3800 mg/m³	TWA: 1000 ppm TWA: 1907 mg/m³	TWA: 1000 mg/m³	TWA: 1000 ppm TWA: 1900 mg/m³
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Ethyl ether 60-29-7	STEL: 200 ppm STEL: 616 mg/m³ TWA: 100 ppm TWA: 308 mg/m³	TWA: 300 mg/m³ Ceiling: 600 mg/m³	TWA: 100 ppm TWA: 309 mg/m³	TWA: 100 ppm TWA: 308 mg/m³ STEL: 200 ppm STEL: 616 mg/m³	TWA: 100 ppm TWA: 310 mg/m³ STEL: 200 ppm STEL: 620 mg/m³

Ethyl Alcohol 64-17-5	-	TWA: 1000 mg/m³ Ceiling: 3000 mg/m³	TWA: 1000 ppm TWA: 1900 mg/m³	TWA: 500 ppm TWA: 1000 mg/m³ STEL: 1000 ppm STEL: 1900 mg/m³	TWA: 1000 ppm TWA: 1900 mg/m³ STEL: 1300 ppm STEL: 2500 mg/m³
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Ethyl ether 60-29-7	TWA: 100 ppm TWA: 308 mg/m³ STEL: 200 ppm STEL: 616 mg/m³	TWA: 400 ppm TWA: 1200 mg/m³	TWA: 400 ppm TWA: 1200 mg/m³ Peak: 400 ppm Peak: 1200 mg/m³	TWA: 400 ppm TWA: 1200 mg/m³ STEL: 500 ppm STEL: 1500 mg/m³	TWA: 308 mg/m³ sz+ STEL: 616 mg/m³ b*
Ethyl Alcohol 64-17-5	TWA: 1000 ppm TWA: 1900 mg/m³ STEL: 5000 ppm STEL: 9500 mg/m³	TWA: 200 ppm TWA: 380 mg/m³	TWA: 200 ppm TWA: 380 mg/m³ Peak: 800 ppm Peak: 1520 mg/m³	TWA: 1000 ppm TWA: 1900 mg/m³	TWA: 1900 mg/m³ STEL: 3800 mg/m³
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Ethyl ether 60-29-7	TWA: 100 ppm TWA: 308 mg/m³ STEL: 200 ppm STEL: 616 mg/m³	TWA: 100 ppm TWA: 308 mg/m³ STEL: 200 ppm STEL: 616 mg/m³	TWA: 400 ppm TWA: 1213 mg/m³ STEL: 500 ppm STEL: 1516 mg/m³	TWA: 100 ppm TWA: 308 mg/m³ STEL: 200 ppm STEL: 616 mg/m³	TWA: 308 mg/m³ TWA: 100 ppm STEL: 616 mg/m³ STEL: 200 ppm
Ethyl Alcohol 64-17-5	STEL: 1000 ppm	-	STEL: 1000 ppm STEL: 1884 mg/m³	TWA: 1000 mg/m³	TWA: 500 ppm TWA: 1000 mg/m³ STEL: 1000 ppm STEL: 1900 mg/m³
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
Ethyl ether 60-29-7	STEL: 200 ppm STEL: 616 mg/m³ TWA: 100 ppm TWA: 308 mg/m³	STEL: 200 ppm STEL: 616 mg/m³ TWA: 100 ppm TWA: 308 mg/m³	TWA: 308 mg/m³ STEL: 616 mg/m³	TWA: 100 ppm TWA: 300 mg/m³ STEL: 150 ppm STEL: 375 mg/m³	STEL: 600 mg/m³ TWA: 300 mg/m³
Ethyl Alcohol 64-17-5	-	-	TWA: 260 mg/m³ STEL: 1900 mg/m³ H*	TWA: 500 ppm TWA: 950 mg/m³ STEL: 625 ppm STEL: 1187.5 mg/m³	TWA: 1900 mg/m³
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Ethyl ether 60-29-7	TWA: 100 ppm TWA: 308 mg/m³ STEL: 200 ppm STEL: 616 mg/m³	TWA: 100 ppm TWA: 308 mg/m³ STEL: 200 ppm STEL: 616 mg/m³	TWA: 100 ppm TWA: 308 mg/m³ Ceiling: 616 mg/m³	TWA: 100 ppm TWA: 308 mg/m³ STEL: 200 ppm STEL: 616 mg/m³	TWA: 100 ppm TWA: 308 mg/m³ STEL: 200 ppm STEL: 616 mg/m³
Ethyl Alcohol 64-17-5	TWA: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m³ STEL: 5000 ppm STEL: 9500 mg/m³	TWA: 500 ppm TWA: 960 mg/m³ Ceiling: 1920 mg/m³	TWA: 960 mg/m³ TWA: 500 ppm STEL: 1000 ppm STEL: 1920 mg/m³	STEL: 1000 ppm STEL: 1910 mg/m³

Chemical name	Sweden	Switzerland	United Kingdom
Ethyl ether 60-29-7	NGV: 100 ppm NGV: 308 mg/m³ Bindande KGV: 200 ppm Bindande KGV: 616 mg/m³	TWA: 400 ppm TWA: 1200 mg/m³ STEL: 400 ppm STEL: 1200 mg/m³	TWA: 100 ppm TWA: 310 mg/m³ STEL: 200 ppm STEL: 620 mg/m³
Ethyl Alcohol 64-17-5	NGV: 500 ppm NGV: 1000 mg/m³ Vägledande KGV: 1000 ppm Vägledande KGV: 1900 mg/m³	TWA: 500 ppm TWA: 960 mg/m³ STEL: 1000 ppm STEL: 1920 mg/m³	TWA: 1000 ppm TWA: 1920 mg/m³ STEL: 3000 ppm STEL: 5760 mg/m³

Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers No information available

Derived No Effect Level (DNEL) - General Public No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering controls No information available.

Personal Protective Equipment

Eye/face protection Tight sealing safety goggles.

Hand protection Wear suitable gloves. Impervious gloves.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations	Do not eat, drink or smoke when using this product. Contaminated work clothing must not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.
Environmental exposure controls	No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Very viscous amber liquid clear
Colour	Amber
Odour	Ether.
Odour Threshold	No information available

Property	**Values**	**Remarks • Method**
Melting point / freezing point	No data available	
Initial boiling point and boiling range	35.6 °C	
Flammability (Solid, Gas)	Liquid-not applicable	
Flammability Limit in Air		
Upper flammability or explosive limits	36.0%	
Lower flammability or explosive limits	1.9%	
Flash point	-35.6 °C	Tag Closed Cup
Autoignition temperature	No data available	
Decomposition temperature		

pH No data available

pH (as aqueous solution) No data available

Kinematic viscosity No data available

Dynamic Viscosity No data available

Water solubility No data available Insoluble in water

Solubility(ies) No data available

Partition Coefficient No data available

Vapour Pressure	442 mmHg	@ .? °C
Relative Density	0.770	@ 60°F (ASTM D 1298)
Bulk Density	No data available	
Liquid Density	No data available	
Vapour Density	>1	.? (air = 1)

Particle characteristics

Particle Size No information available

Particle Size Distribution No information available

9.2. Other information

9.2.1. Information with regards to physical hazard classes
Not applicable

9.2.2. Other safety characteristics
No information available < 1 (n-BuAc =1)

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion Data

Sensitivity to mechanical impact None.

Sensitivity to static discharge Yes.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

Hazardous Polymerisation Hazardous polymerisation does not occur.

10.4. Conditions to avoid

Conditions to avoid Heat, flames and sparks.

10.5. Incompatible materials

Incompatible materials Strong acids. Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous Decomposition Products	Decomposition will not occur if handled and stored properly. In case of fire, oxides of carbon, hydrocarbons, fumes or vapors, and smoke may be produced.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. May cause drowsiness or dizziness.
Eye contact	Avoid contact with eyes.
Skin contact	Not expected to be a skin irritant during prescribed use.
Ingestion	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Harmful if swallowed. (based on components).

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	May cause redness and tearing of the eyes. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Acute toxicity

Numerical measures of toxicity

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

ATEmix (oral)	1,608.90 mg/kg
ATEmix (dermal)	20,000.00 mg/kg
ATEmix (inhalation-vapour)	97.00 mg/l
ATEmix (inhalation-dust/mist)	116.90 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Ethyl ether	= 1215 mg/kg (Rat)	> 20000 mg/kg (Rabbit)	= 32000 ppm (Rat) 4 h
Ethyl Alcohol	= 7060 mg/kg (Rat)	-	= 116.9 mg/L (Rat) 4 h = 133.8 mg/L (Rat) 4 h
Cellulose nitrate	> 5 g/kg (Rat)	-	-

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

Skin corrosion/irritation Not classified.

Serious eye damage/eye irritation Not classified.

Respiratory or skin sensitisation Not classified.

Germ cell mutagenicity Not classified.

Carcinogenicity Not classified.

Reproductive toxicity Not classified.

STOT - single exposure May cause drowsiness or dizziness.

STOT - repeated exposure Not classified.

Aspiration hazard Not classified.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties This product does not contain any known or suspected endocrine disruptors.

11.2.2. Other information

Other Adverse Effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Toxic to aquatic life with long lasting effects.

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Ethyl ether	-	LC50: =2560mg/L (96h, Pimephales promelas) LC50: >10000mg/L (96h, Lepomis macrochirus)	EC50 = 5600 mg/L 15 min	-
Ethyl Alcohol	-	LC50: 12.0 - 16.0mL/L (96h, Oncorhynchus mykiss) LC50: >100mg/L (96h, Pimephales promelas) LC50: 13400 - 15100mg/L (96h, Pimephales promelas)	EC50 = 34634 mg/L 30 min EC50 = 35470 mg/L 5 min	LC50: 9268 - 14221mg/L (48h, Daphnia magna) EC50: =2mg/L (48h, Daphnia magna)

12.2. Persistence and degradability

Persistence/Degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation

Component Information

Chemical name	Partition coefficient
Ethyl ether	0.82
Ethyl Alcohol	-0.35

12.4. Mobility in soil

Mobility in Soil No information available.

Mobility

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB.

Chemical name	PBT and vPvB assessment
Ethyl ether	The substance is not PBT / vPvB
Ethyl Alcohol	The substance is not PBT / vPvB PBT assessment does not apply

12.6. Endocrine disrupting properties

Endocrine disrupting properties	No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products	Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

SECTION 14: Transport information

IMDG

14.1 UN number or ID number	UN2059
14.2 Proper Shipping Name	NITROCELLULOSE SOLUTION, FLAMMABLE
14.3 Transport hazard class(es)	3
14.4 Packing Group	II
Description	UN2059, NITROCELLULOSE SOLUTION, FLAMMABLE, 3, II, (-35.6°C c.c.)
14.5 Marine Pollutant	This material may meet the definition of a marine pollutant
14.6	
EmS-No	F-E, S-D

RID

14.1 UN/ID No	UN2059
14.2 Proper Shipping Name	NITROCELLULOSE SOLUTION, FLAMMABLE
14.3 Transport hazard class(es)	3
14.4 Packing Group	II

Description	UN2059, NITROCELLULOSE SOLUTION, FLAMMABLE, 3, II
14.5	
Classification Code	D

ADR

14.1 UN number or ID number	2059
14.2 Proper Shipping Name	NITROCELLULOSE SOLUTION, FLAMMABLE
14.3 Transport hazard class(es)	3
Labels	3
14.4 Packing Group	II
Description	2059, NITROCELLULOSE SOLUTION, FLAMMABLE, 3, II, (B)
14.6	
Classification Code	D
Tunnel restriction code	(B)

IATA

14.1 UN number or ID number	UN2059
14.2 Proper Shipping Name	NITROCELLULOSE SOLUTION, FLAMMABLE
14.3 Transport hazard class(es)	3
14.4 Packing group	II
Description	UN2059, NITROCELLULOSE SOLUTION, FLAMMABLE, 3, II
14.6	
ERG Code	3H

Note	Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances Based on package size, product may be eligible for limited quantity exception

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

France

Occupational Illnesses (R-463-3, France)

Chemical name	French RG number
Ethyl ether 60-29-7	RG 84
Ethyl Alcohol 64-17-5	RG 84

Netherlands

Chemical name	Netherlands - List of Carcinogens	Netherlands - List of Mutagens	Netherlands - List of Reproductive Toxins
Ethyl Alcohol	Present	-	Fertility Category 1A Development Category 1A Can be harmful via breastfeeding

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorisations and/or restrictions on use:
This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants
Not applicable

Dangerous substance category per Seveso Directive (2012/18/EU)
P5a - FLAMMABLE LIQUIDS
P5b - FLAMMABLE LIQUIDS
P5c - FLAMMABLE LIQUIDS
E2 - Hazardous to the Aquatic Environment in Category Chronic 2

Ozone-depleting substances (ODS) regulation (EC) 1005/2009
Not applicable

Biocidal Products Regulation (EU) No 528/2012 (BPR)

Chemical name	Biocidal Products Regulation (EU) No 528/2012 (BPR)
Ethyl Alcohol - 64-17-5	Product-type 1: Human hygiene Product-type 2: Disinfectants and algaecides not intended for direct application to humans or animals Product-type 4: Food and feed area

International Inventories

Chemical name	TSCA	DSL/NDSL	EINECS/ ELINCS	PICCS	ENCS	IECSC	AIIC	KECL
Ethyl ether 60-29-7 (65-75)	X	X	X	X	X	X	X	X
Ethyl Alcohol 64-17-5 (20-30)	X	X	X	X	X	X	X	X
Cellulose nitrate 9004-70-0 (5-10)	X	X	-	X	X	X	X	X

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

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

15.2. Chemical safety assessment

Chemical Safety Report No information available

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3
EUH019 - May form explosive peroxides
EUH066 - Repeated exposure may cause skin dryness or cracking
H224 - Extremely flammable liquid and vapour
H225 - Highly flammable liquid and vapour
H302 - Harmful if swallowed
H336 - May cause drowsiness or dizziness

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	Sensitisers		

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method

Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)

European Chemicals Agency (ECHA) (ECHA_API)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

National Institute of Technology and Evaluation (NITE)

Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine’s PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications

Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme

Organisation for Economic Co-operation and Development Screening Information Data Set

World Health Organization

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Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

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End of Safety Data Sheet