SAFETY DATA SHEET

1. IDENTIFICATION

Product code: CO125
Product Name: COLLODION, FLEXIBLE, USP

Other means of identification
Synonyms: No information available
CAS #: Mixture
RTECS #: Not available
CI#: Not available

Recommended use of the chemical and restrictions on use
Recommended use: No information available.
Uses advised against: No information available

Supplier: Spectrum Chemical Mfg. Corp
14422 South San Pedro St.
Gardena, CA  90248
(310) 516-8000

Order Online At: https://www.spectrumchemical.com
Emergency telephone number  Chemtrec 1-800-424-9300
Contact Person: Tom Tyner (USA - West Coast)
Contact Person: Ibad Tirmiz (USA - East Coast)

2. HAZARDS IDENTIFICATION

Classification
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)
Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

<table>
<thead>
<tr>
<th>Effect</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - Oral</td>
<td>Category 4</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Category 1B</td>
</tr>
<tr>
<td>Specific target organ toxicity (single exposure)</td>
<td>Category 3</td>
</tr>
<tr>
<td>Specific target organ toxicity (repeated exposure)</td>
<td>Category 1</td>
</tr>
<tr>
<td>Flammable liquids</td>
<td>Category 1</td>
</tr>
</tbody>
</table>

Label elements

Danger
Hazard statements
Harmful if swallowed
Causes skin irritation

Product code: CO125  Product name: COLLODION, FLEXIBLE, USP
Hazard not otherwise classified (HNOC)
Not Applicable

Other hazards
Rags, paper, cloth, and other porous materials may spontaneously combust when wetted with this product

Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Do not breathe 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 container and receiving equipment
Use explosion-proof equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Keep cool
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response
In case of fire: Use CO2, dry chemical, or foam to extinguish.
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 attention.
If skin irritation occurs: Get medical attention
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water
Wash contaminated clothing before reuse
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell
Rinse mouth

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

Precautionary Statements - Disposal
Dispose of contents and container to an approved waste disposal plant in accordance with local, regional, national and international regulations as applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Ether</td>
<td>60-29-7</td>
<td>65-69</td>
</tr>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>21-25</td>
</tr>
</tbody>
</table>
4. FIRST AID MEASURES

First aid measures

General Advice: National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention. If skin irritation persists, call a physician.

Eye Contact: Flush eyes with water for 15 minutes. Get medical attention.

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

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms
- Causes serious eye irritation
- Causes skin irritation
- May cause irritation of respiratory tract
- Central nervous system effects
- Dizziness
- Drowsiness
- anesthetic
- May damage fertility or the unborn child
- May affect the liver
- May affect the cardiovascular system
- It may cause dermatitis
- May cause anorexia
- May affect respiration

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically.

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Carbon dioxide (CO2). Dry chemical. Alcohol-resistant foam. Water spray.

Unsuitable Extinguishing Media: Do not use a solid (straight) water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Hazardous combustion products: carbon oxides.
Specific hazards

Extremely Flammable. May be ignited by heat, sparks or flames. Container explosion may occur under fire conditions or when heated. Vapor may travel considerable distance to source of ignition and flash back. Vapors may form explosive mixtures with air. Most vapors are heavier than air. They will spread along the ground and collect in low or confined areas (sewers, basements, tanks). Burns with smoky greenish flame. Violent reaction or ignition on contact with halogens (e.g., bromine, chlorine), interhalogens (e.g., iodine heptafluoride), oxidants (e.g., silver perchlorate, nitrosyl perchlorate, nitryl perchlorate, chromyl chloride, fluorine nitrate, permanganic acid, nitric acid, hydrogen peroxide, peroxodisulfuric acid, iodine (VII) oxide, sodium peroxide, ozone, and liquid air), sulfur and sulfur compounds (e.g., sulfur when dried with peroxidized ether, sulfuryl chloride). (Ethyl ether) Tends to form explosive peroxides under influence of light and air and when evaporated to dryness. Explosive reaction with boron triazole, bromine trifluoride, bromine pentafluoride, perchloric acid, uranyl nitrate + light, wood pulp extracts + heat. Only electrical equipment of explosion proof type (group C classification) is permitted to be operated in ether areas. May explode when brought in contact with anhydrous nitric acid. (Ethyl ether).

Special Protective Actions for Firefighters

Specific Methods: No information available

Special Protective Equipment 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: Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition. Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use spark-proof tools and explosion-proof equipment. In case of large spill, water spray or vapor suppressing foam may be used to reduce vapors, but may not prevent ignition in closed spaces.

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Absorb spill with inert material (e.g. vermiculite, dry sand or earth). In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Use only non-sparking tools. Clean contaminated surface thoroughly.

Product code: CO125
Product name: COLLODION, FLEXIBLE, USP
7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:
Provide sufficient air exchange and/or exhaust in work rooms. Remove all sources of ignition. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from incompatible materials.

Safe Handling Advice
Wear personal protective equipment. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not breathe vapors or spray mist. Do not ingest. When using do not smoke. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:
Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials. Store in a segregated and approved area.

Incompatible Materials:
Acids
Alkalis
Bases
Oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

<table>
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<tr>
<th>Component</th>
<th>CAS No</th>
<th>OSHA</th>
<th>NIOSH</th>
<th>ACGIH</th>
<th>AIHA WEEL</th>
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<td>1200 mg/m³ TWA</td>
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<td>Ethanol</td>
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<td>None</td>
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<td>Castor Oil</td>
<td>8001-79-4</td>
<td>None</td>
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<td>None</td>
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<tr>
<td>Camphor (DL)</td>
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<td>2 mg/m³ TWA</td>
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Canada

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<td>1000 ppm STEL</td>
<td>1000 ppm TWAEV</td>
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<tr>
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<td>8001-79-4</td>
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<td></td>
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<td>19 mg/m³ STEV</td>
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</table>

Australia and Mexico

Product code: CO125  Product name: COLLODION, FLEXIBLE, USP
<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>Australia</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Ether</td>
<td>60-29-7</td>
<td>500 ppm STEL 1520 mg/m³ TWA</td>
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</tr>
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<tr>
<td>Castor Oil</td>
<td>8001-79-4</td>
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<td>None</td>
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<tr>
<td>Camphor (DL)</td>
<td>76-22-2</td>
<td>3 ppm STEL 19 mg/m³</td>
<td>2 ppm TWA 12 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 ppm TWA 12 mg/m³</td>
<td>3 ppm STEL 19 mg/m³</td>
</tr>
</tbody>
</table>

**Appropriate engineering controls**

**Engineering measures to reduce exposure:** Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

**Individual protection measures, such as personal protective equipment**

**Personal Protective Equipment**

- **Eye protection:** Goggles
- **Skin and body protection:** Chemical resistant apron, Gloves, Long sleeved clothing
- **Respiratory protection:** Vapor respirator. Be sure to use an approved/certified respirator or equivalent.
- **Hygiene measures:** Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

- **Physical state:** Liquid
- **Appearance:** Viscous.
- **Color:** Clear. Colorless to pale yellow.
- **Odor:** Ethereal.
- **Taste:** No information available.
- **Flammability (solid, gas):** Extremely flammable
- **Formula:** No information available
- **Flashpoint (°C/°F):** -45°C/-49°F
- **Autoignition Temperature (°C/°F):** The lowest known value is 180°C/356°F (Ethyl ether)
- **Lower Explosion Limit (%):**
- **Flash Point Tested according to:** Closed cup
- **Upper Explosion Limit (%):** 36
- **Boiling point/range (°C/°F):** 36.111°C/97°F
- **Density (g/cm³):** No information available
- **Specific gravity:**

**Product code:** CO125  **Product name:** COLLODION, FLEXIBLE, USP  **Page** 6 / 17
10. STABILITY AND REACTIVITY

Reactivity
Ethyl Ether: Air and light sensitive. Also incompatible with bromoazide, chlorine, chlorine trifluoride, chromic anhydride, chromyl chloride, lithium aluminum hydride, nitrosyl perchlorate, nitril perchlorate, ozone, perchorlic acid, permanganates, sulfuric acid, potassium peroxide, sodium peroxide, triethyl aluminum trimethyl aluminum, bromine, iodine heptafluoride, silver perchlorate, fluoride nitrate, permanganic acid, nitric acid, hydrogen peroxide, peroxodisulfuric acid, iodine (VII) oxide, peat soils, thiocarbazyl perchlorate, sulfonil chloride, sulfur, uranyl nitrate, acetyl peroxide, and wood pulp extracts. Can react vigorously with acetyl peroxide, air, bromoazide, ClF3, CrO3, Cr(OCl)2, LiAlH2, NOClO4, O2, NClO2, (H2SO4 + permanganates), K2O2, [(C2H5)3Al + air], [(CH3)3Al + air]. Ethyl Alcohol: Ethanol rapidly absorbs moisture from the air. Can react vigorously with oxidisers. The following oxidants have been demonstrated to undergo vigorous/explosive reaction with ethanol: barium perchlorate, bromine pentafluoride, calcium hypochlorite, chloride, chromyl perchlorate, chromium trioxide, chromyl chloride, dioxygen difluoride, disulfuryl difluoride, fluoride nitrate, hydrogen peroxide, iodine heptafluoride, nitric acid, nitrosyl perchlorate, perchloric acid, permanganic acid, peroxodisulfuric acid, potassium peroxide, potassium perchlorate, potassium permanganate, ruthenium(VIII) oxide, silver perchlorate, silver peroxide, uranium hexafluoride, uranyl perchlorate, chlorine. Ethanol can react vigorously/explosively with the following: acetyl bromide (evolves hydrogen bromide), acetyl chloride, aluminum sesquibromide ethylate, ammonia + silver nitrate (forms silver nitrate and silver fulminate), isocyanates, halogens, hydrazine, caustics (ammonia, ammonium hydroxide, calcium hydroxide, potassium hydroxide), acid anhydrides, ammonia or hydrazine + silver (I) oxide, chlorate, chromic anhydride, cyanuric acid + water, dichloromethane + sulfuric acid + nitrate (or nitrite), hydrogen peroxide + sulfuric acid, iodine + phosphorus (forms ethane iodide), iodine + methanol + mercuric oxide, magnesium perchlorate (forms ethyl perchlorate), manganese perchlorate + 2,2-dimethoxy propane, perchlorates, chlorates, permanganates + sulfuric acid, potassium superoxide, potassium tert-butoxide, silver + nitric acid (forms silver fulminate), silver nitrate (forms ethyl nitrate), sodium hydrazide, sulfuric acid + sodium dichromate, tetrachlorisilane + water, mercuric nitrate, acetic anhydride + sodium hydroxulfate, disulfuric acid + nitric acid, phosphorous (III) oxide, potassium tert-butoxide + acids, alkali metals (liberates flammable hydrogen gas). Ethanol is also incompatible with platinum, and sodium (liberates flammable hydrogen gas). No really safe conditions exist under which ethyl alcohol and chlorine oxides can be handled. Reacts vigorously with acetyl chloride. It can react with freshly cut/etched/scratched aluminum (evolution of heat and release hydrogen gas). The Ethyl alcohol has to be on the aluminum surface as it is being cut/etched/etched. Note: This mixture can be incompatible with amines.

Chemical stability

Stability: Tends to form explosive peroxides when exposed to air and light. Avoid allowing Nitrocellulose resin to become dry and avoid friction and impact to any quantity of dry resin. Dry nitrocellulose resin is extremely flammable and burns explosively and is friction and impact sensitive.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur


Incompatible Materials: Acids
Alkalis
Bases
Oxidizing agents

Hazardous decomposition Carbon oxides.
Other Information
Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Eyes. Ingestion. Inhalation. Skin.

Acute Toxicity

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>LD50/oral/rat</th>
<th>LD50/oral/mouse</th>
<th>LD50/dermal/rabbit</th>
<th>LD50/dermal/rat</th>
<th>LC50/inhalation/rat</th>
<th>LC50/inhalation/mouse</th>
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<tbody>
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<td>60-29-7</td>
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<td>&gt;20 mL/kg Dermal LD50 Rabbit</td>
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<td>130000 mg/m³ 3 hr 31000 ppm 30 M</td>
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<td>Ethanol</td>
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<td>7060 mg/kg Oral LD50 Rat</td>
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<td>124.7 mg/L Inhalation LC50 Rat 4 h</td>
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<td>&gt; 5 g/kg Oral LD50 Rat</td>
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<tr>
<td>Castor Oil</td>
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<td>No information available</td>
<td>No information available</td>
</tr>
</tbody>
</table>
Camphor (DL)

CAS No 76-22-2

LD50/oral/rat = No information available
LD50/oral/mouse = 1310 mg/kg Oral LD50 Mouse
LD50/dermal/rabbit = No information available
LD50/dermal/rat = = 1310 mg/kg Oral LD50
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50 information = No information available

Product Information

LD50/oral/rat =
Value - Acute Tox = No information available

LD50/oral/mouse =
Value - Acute Tox Oral = No information available

LD50/dermal/rabbit
Value - Acute Tox = No information available

LD50/dermal/rat
VALUE - Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = No information available
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Causes skin irritation.

Eye Contact: Causes serious eye irritation. May cause conjunctivitis.

Inhalation

Irritating to respiratory system. Inhalation of high concentrations of vapors may cause dizziness or suffocation. Inhalation of high concentrations of vapor may cause anesthetic effects. Vapor mist causes irritation of the respiratory tract and mucous membranes. It may cause nausea, vomiting, excessive salivation, excessive sweating. It can affect behavior/central nervous system, cardiovascular system, respiratory system. Other symptoms may include excitement, depression, personality changes, confusion, convulsions, drowsiness, dizziness, faintness, irritability, loss of memory, headache, fatigue, slurred speech, ataxia, euphoria, anesthetic effects, possible coma, bradycardia (slow heart rate or tachycardia (fast heart rate), cardiac arrhythmias, irregular respiration or respiratory depression, coughing, bronchodilation, increase in respiratory rate.

Ingestion

Harmful if swallowed. May cause gastrointestinal tract irritation with nausea,
vomiting, diarrhea, gastritis, abdominal distension, loss of appetite, flushed skin. May affect behavior/central nervous system (central nervous system depression - amnesia, headache, muscular incoordination, excitation, mild euphoria, slurred speech, drowsiness, staggering gait, fatigue, changes in mood/personality, excessive talking, dizziness, ataxia, convulsions, somnolence, coma/narcosis, hallucinations, distorted perceptions, general anesthetic), peripheral nervous system (spastic paralysis) vision (diplopia), blood (changes in serum composition), liver, kidneys. Aspiration into the lungs can cause chemical pneumonitis.

Aspiration hazard
No information available.

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

Chronic Toxicity
Prolonged or repeated skin contact may cause dermatitis and defatting, dryness, and cracking of the skin. Prolonged or repeated ingestion or inhalation may cause loss of appetite and weight loss. Prolonged or repeated ingestion or inhalation may affect the liver.

Sensitization:
No information available.

Mutagenic Effects:
For Ether:
May affect genetic material
Experiments with bacteria and/or yeast have shown mutagenic effects
Animal experiments showed mutagenic effects

Carcinogenic effects:
Not considered carcinogenic.

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<th>Component</th>
<th>CAS No</th>
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<th>ACGIH - Carcinogens</th>
<th>NTP</th>
<th>OSHA HCS - Carcinogens</th>
<th>Australia - Notifiable Carcinogenic Substances</th>
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<td>Not listed</td>
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ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity
May damage fertility or the unborn child

Reproductive Effects:
Causes adverse reproductive effects

Developmental Effects:
May cause harm to the unborn child
May cause adverse developmental effects

Product code: CO125
Product name: COLLODION, FLEXIBLE, USP
Page 10 / 17
**Teratogenic Effects:**
May cause birth defects (teratogenic effects)

**Specific Target Organ Toxicity**

**STOT - single exposure**
central nervous system.

**STOT - repeated exposure**
Causes damage to organs through prolonged or repeated exposure.

**Target Organs:**

---

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Ecotoxicity effects:**
Aquatic environment.

**Ethyl Ether - 60-29-7**

**Fish**
2560 mg/L LC50 Pimephales promelas 96 h flow-through 1
10000 mg/L LC50 Lepomis macrochirus 96 h static 1

**Crustacea**
165 mg/L EC50 Daphnia magna 24 h

**Ethanol - 64-17-5**

**Fish**
LC50: 12.0 - 16.0mL/L (96h, Oncorhynchus mykiss) LC50: >100mg/L (96h, Pimephales promelas)
LC50: 13400 - 15100mg/L (96h, Pimephales promelas)

**Crustacea**
LC50: 9268 - 14221mg/L (48h, Daphnia magna) EC50: =2mg/L (48h, Daphnia magna)
EC50: =10800mg/L (24h, Daphnia magna)

**Camphor (DL) - 76-22-2**

**Fish**
Pimephales promelas (fathead minnow) - 110 mg/l - 96 h

**Persistence and degradability:**
No information available

**Bioaccumulative potential:**
No information available.

**Mobility in soil**
No information available

**Other adverse effects**
No information available.

---

**13. DISPOSAL CONSIDERATIONS**

**Disposal Methods**

**Waste from residues / unused products:**
Waste must be disposed of in accordance with Federal, State and Local regulation.

**Contaminated packaging:**
Empty containers should be taken for local recycling, recovery or waste disposal

<table>
<thead>
<tr>
<th></th>
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<tbody>
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<td>U117 ignitable waste</td>
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<tr>
<td>Pyroxylin</td>
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<tr>
<td>Castor Oil</td>
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</tbody>
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---

**14. TRANSPORT INFORMATION**

**DOT**

**UN-No:**
UN2059

**Proper Shipping Name:**
Nitrocellulose, solution, flammable

**Product code:**
CO125

**Product name:**
COLLODION, FLEXIBLE, USP
Product code: CO125  Product name: COLLODION, FLEXIBLE, USP
15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>U.S. TSCA</th>
<th>KOREA KECL</th>
<th>Philippines (PICCS)</th>
<th>Japan ENCS (2)-365,(2)-361</th>
<th>China IECSC</th>
<th>Australia (AICS)</th>
<th>EINECS-No.</th>
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<td>Ethyl Ether</td>
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<td>Present</td>
<td>Present (2)-202</td>
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<td>Present</td>
<td>Present 200-467-2</td>
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<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>Present (ACTIVE)</td>
<td>Present KE-13217</td>
<td>Present</td>
<td>Present (2)-202</td>
<td>Present</td>
<td>Present</td>
<td>Present 200-578-6</td>
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<td>9004-70-0</td>
<td>Present (ACTIVE)</td>
<td>Present KE-25980</td>
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<td>Present (8)-176</td>
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<td>Present KE-04979</td>
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<td>Present 232-293-8</td>
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<td>Present (ACTIVE)</td>
<td>Present KE-34423</td>
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<td>Present (4)-308,(4)-60</td>
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<td>Present 200-945-0</td>
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</table>

U.S. Regulations

**Ethyl Ether**
- Massachusetts RTK: Present
- New Jersey RTK Hazardous Substance List: 0701
- New Jersey (EHS) List: 0701 500 lb TPQ
- New Jersey - Discharge Prevention - List of Hazardous Substances: Present
- New Jersey TCPA - EHS: 10000lbTQ
- Pennsylvania RTK: Environmental hazard
- Pennsylvania RTK - Environmental Hazard List: Present
- Minnesota - Hazardous Substance List: Present
- New York Release Reporting - List of Hazardous Substances: 100 lb RQ
- Louisiana Reportable Quantity List for Pollutants: 100lbfinal RQ
- California Directors List of Hazardous Substances: Present

**Ethanol**
- Massachusetts RTK: Present
- New Jersey RTK Hazardous Substance List: 0844
- Pennsylvania RTK: Present
- Minnesota - Hazardous Substance List: Present
- California Directors List of Hazardous Substances: Present

**Pyroxylin**
- Massachusetts RTK: Present
- New Jersey RTK Hazardous Substance List: 1366
- Pennsylvania RTK: Present

**Castor Oil**
- Massachusetts RTK: Present
- New Jersey RTK Hazardous Substance List: 0334
- Pennsylvania RTK: Present
- Minnesota - Hazardous Substance List: Present
- California Directors List of Hazardous Substances: Present

**FDA - 21 CFR - Total Food Additives**
- List Sourced from EAFUS: 169.175, 169.176, 169.177, 169.181, 172.340, 172.560, 172.580, 175.105, 176.180, 172.200, 177.1200, 177.1650, 178.1010, 184.1293, 73.30, 73.345, 73.615

**FDA - 21 CFR - Direct Food Additives**
- 21 CFR 172.510 21 CFR 172.876

**FDA - 21 CFR - Total Food Additives**
- List Sourced from EAFUS: 73.1

**Product code:** CO125  
**Product name:** COLLODION, FLEXIBLE, USP

Chemicals Known to the State of California to Cause Cancer:
⚠️ WARNING: This product can expose you to chemicals including (see table below) which is (are) known to the State of California to cause cancer. For more information go to www.p65warnings.ca.gov.

Chemicals Known to the State of California to Cause Reproductive Toxicity:
⚠️ WARNING: This product can expose you to chemicals including (see table below) which is (are) known to the State of California to cause birth defects or other reproductive harm. For more information go to www.p65warnings.ca.gov.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>Carcinogen</th>
<th>Developmental Toxicity</th>
<th>Male Reproductive Toxicity</th>
<th>Female Reproductive Toxicity</th>
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<tr>
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<tr>
<td>Ethanol</td>
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<td>carcinogen (Ethanol in alcoholic beverages)</td>
<td>developmental toxicity (Ethyl alcohol in alcoholic beverages)</td>
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<tr>
<td>Pyroxylin</td>
<td>9004-70-0</td>
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<td>Castor Oil</td>
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<td>Not Listed</td>
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<tr>
<td>Camphor (DL)</td>
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<td>Not Listed</td>
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CERCLA/SARA

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<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>CERCLA - Hazardous Substances and their Reportable Quantities</th>
<th>Section 302 Extremely Hazardous Substances and TPOs</th>
<th>Section 302 Extremely Hazardously Substances and RQs</th>
<th>Section 313 - Chemical Category</th>
<th>Section 313 - Reporting de minimis</th>
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<tr>
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<td>100 lb final RQ 45.4 kg final RQ</td>
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U.S. TSCA

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<tr>
<th>Component</th>
<th>CAS No</th>
<th>TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)</th>
<th>TSCA 8(d) - Health and Safety Reporting</th>
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<td>Pyroxylin</td>
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<tr>
<td>Castor Oil</td>
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Canada

WHIMIS 2015 - GHS Classifications

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<tr>
<th>Component</th>
<th>WHMIS 2015 Hazard Classification</th>
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<tbody>
<tr>
<td>Ethyl Ether</td>
<td>Flammable liquids - Category 1: H224 Extremely flammable liquid and vapour.; Acute toxicity - Oral - Category 4: H302 Harmful if swallowed.; Specific target organ toxicity - Single exposure - Category 3: H336 May cause drowsiness or dizziness.</td>
</tr>
<tr>
<td>Ethanol</td>
<td>Flammable liquids - Category 2: H225 Highly flammable liquid and vapour.; Serious Eye Damage/Eye Irritation - Category 2B: H320 Causes eye irritation.</td>
</tr>
<tr>
<td>Pyroxylin</td>
<td>Flammable solids - Undefined: Flammable solids - undefined</td>
</tr>
</tbody>
</table>

Product code: CO125  Product name: COLLODION, FLEXIBLE, USP  Page 14 / 17
category; Self-reactive substances and mixtures - Undefined: Self reactive substance - undefined category (This product is an explosive according to the TDG and it also corresponds to a Self-reactive substance according to the HPR); Combustible Dust - Category 1: May form combustible dust concentrations in air (if 5% or more by weight of its composition has a particle size < 500 µm); Physical Hazards Not Otherwise Classified - Category 1: May cause an explosion under conditions of shock and/or friction; Self-heating substances and mixtures - Undefined: (hazard class was established from consulted scientific literature but did not allow to specify hazard category) Flammable solids - Category 2: H228 Flammable solid. (synthetic)

Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

DSL/NDSL

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>Canada (DSL)</th>
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<tr>
<td>Ethanol</td>
<td>64-17-5</td>
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<td>Present</td>
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<tr>
<td>Castor Oil</td>
<td>8001-79-4</td>
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<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>CEPA Schedule I - Toxic Substances</th>
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</thead>
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<td>Ethyl Ether</td>
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<tr>
<td>Ethanol</td>
<td>64-17-5</td>
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<tr>
<td>Pyroxylin</td>
<td>9004-70-0</td>
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<tr>
<td>Castor Oil</td>
<td>8001-79-4</td>
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<tr>
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<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting</th>
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<td>Ethanol</td>
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<td>76-22-2</td>
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</table>

EU Classification

EU GHS - SV - CLP 1272/2008

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>EU GHS - SV - CLP (1272/2008)</th>
</tr>
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<tbody>
<tr>
<td>Ethyl Ether</td>
<td>60-29-7</td>
<td>Flammable liquids - Flam. Liq. 1: H224 Extremely flammable liquid and vapour.; Acute toxicity - Oral - Acute Tox. 4: H302 Harmful if swallowed. (Minimum classification); Specific target organ toxicity - Single exposure STOT SE 3: H336 May cause drowsiness or dizziness.; Supplemental Hazards: EUH019 May form explosive peroxides.; Supplemental Hazards: EUH066 Repeated exposure may cause skin dryness or cracking.603-022-00-4</td>
</tr>
<tr>
<td>Ethanol</td>
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<td>Flammable liquids - Flam. Liq. 2: H225 Highly flammable liquid and vapour.603-002-00-5</td>
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Explosive; mass explosion hazard.603-037-00-6

<table>
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<tr>
<th>Component</th>
<th>CAS No</th>
<th>Classification</th>
<th>Concentration Limits</th>
<th>Safety Phrases</th>
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</tbody>
</table>

EU - CLP (1272/2008)

R-phrase(s)
R11 - Highly flammable
R19 - May form explosive peroxides
R22 - Harmful if swallowed

S-phrase(s)
S46 - If swallowed, seek medical advice immediately and show this container or label

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:
F - Highly flammable
Xn - Harmful

16. OTHER INFORMATION

Preparation Date: 6/17/2015
Revision date: 5/9/2019
Prepared by: Sonia Owen

Disclaimer:
All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no

Product code: CO125 Product name: COLLODION, FLEXIBLE, USP
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End of Safety Data Sheet