

SECTION 1: Identification**1.1. Product identifier**

Product form : Mixture
Product name : Silver Goop

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Swagelok
29495 F.A. Lennon Drive
44139 Solon, OH - United States
T 440-349-5600 - F 440-519-3304
www.swagelok.com

1.4. Emergency telephone number

Emergency number : **Infotrac:** North America: 1-800-535-5053 International: 1-352-323-3500

SECTION 2: Hazard identification**2.1. Classification of the substance or mixture****Classification (GHS CA)**

Serious eye damage/eye irritation Category 2B H320
Hazardous to the aquatic environment - Acute Hazard Category 1 H400
Hazardous to the aquatic environment - Chronic Hazard Category 1 H410

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements**GHS CA labeling**

Hazard pictograms (GHS CA) :



Signal word (GHS CA) : Warning

Hazard statements (GHS CA) : H320 - Causes eye irritation
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (GHS CA) : P264 - Wash hands, forearms and face thoroughly after handling.
P273 - Avoid release to the environment.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P391 - Collect spillage.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS CA)

No data available

SECTION 3: Composition/Information on ingredients**3.1. Substances**

Not applicable

3.2. Mixtures

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Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
Castor oil	Oils, castor / Castor oil extractives and physically modified derivatives obtained from Ricinus communis, Euphorbiaceae (Physeter) / RICINUS COMMUNIS OIL / Ricinus communis L. / Castor oil (Ricinus communis L.) / Castor oil (Extractives and their physically modified derivatives. It consists primarily of the glycerides of the fatty acid ricinoleic. (Ricinus communis.) / RICINUS COMMUNIS (CASTOR) ROOT EXTRACT	(CAS-No.) 8001-79-4	40 - 50	Eye Irrit. 2B, H320

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : Allow affected person to breathe fresh air. Allow the victim to rest.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
- First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.
- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.
- Symptoms/effects after inhalation : Prolonged exposure may cause irritation.
- Symptoms/effects after skin contact : Prolonged exposure may cause irritation.
- Symptoms/effects after eye contact : May cause moderate irritation, including burning sensation, tearing, redness or swelling.
- Symptoms/effects after ingestion : Ingestion may cause adverse effects.
- Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

4.3. Immediate medical attention and special treatment, if necessary

- Other medical advice or treatment : If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container and SDS at hand.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

5.2. Unsuitable extinguishing media

- Unsuitable extinguishing media : Do not use a heavy water stream.

5.3. Specific hazards arising from the hazardous product

- Fire hazard : Not considered flammable but may burn at high temperatures.
- Explosion hazard : Product is not explosive.

5.4. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Avoid contact with skin and eyes.

6.2. Methods and materials for containment and cleaning up

- For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.3. Reference to other sections

- For further information refer to section 8: "Exposure controls/personal protection"

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
- Additional hazards when processed : Avoid contact with skin, eyes and clothing.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Children. Keep container closed when not in use.
- Incompatible products : Strong bases. Strong acids.
- Incompatible materials : Sources of ignition. Direct sunlight.
- Heat-ignition : Keep away from heat, sparks and flame.
- Storage area : Store in a dry, cool and well-ventilated place.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

- Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Materials for protective clothing:

Impervious clothing

Hand protection:

Wear protective gloves.

Eye protection:

Chemical goggles or safety glasses

Respiratory protection:

If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : No data available
- Color : Silver
- Odor : Mild
- Odor threshold : No data available
- pH : 6 - 7.54
- Relative evaporation rate (butyl acetate=1) : No data available
- Relative evaporation rate (ether=1) : No data available
- Melting point : No data available
- Freezing point : No data available
- Boiling point : No data available
- Flash point : > 545 °F (>285 °C) Closed Cup

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Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable
Vapor pressure	: No data available
Vapor pressure at 50 °C	: No data available
Relative density	: SG 2.1 (RD 1.2 g/mL)
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Explosive properties	: Explosion Data – Sensitivity to Mechanical Impact: Not expected to present an explosion hazard due to mechanical impact. Explosion Data – Sensitivity to Static Discharge: Not expected to present an explosion hazard due to static discharge.
Explosion limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	: Stable under normal conditions.
Chemical stability	: Not established.
Possibility of hazardous reactions	: Not established.
Conditions to avoid	: Direct sunlight. Extremely high or low temperatures.
Incompatible materials	: Strong acids. Strong bases.
Hazardous decomposition products	: Oxides of silver. Carbon oxides (CO, CO ₂). Nitrogen oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Not classified pH: 6 - 7.54
Serious eye damage/irritation	: Causes eye irritation. pH: 6 - 7.54
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: Not classified
Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation	: Prolonged exposure may cause irritation.
Symptoms/effects after skin contact	: Prolonged exposure may cause irritation.
Symptoms/effects after eye contact	: May cause moderate irritation, including burning sensation, tearing, redness or swelling.
Symptoms/effects after ingestion	: Ingestion may cause adverse effects.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

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12.2. Persistence and degradability

Silver Goop	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Silver Goop	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

GWPmix comment : No known effects from this product.
Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

14.1. Basic shipping description

In accordance with TDG

Transportation of Dangerous Goods

Not regulated for transport

14.2. Transport information/DOT

Department of Transport

DOT NA No : UN3082
UN-No.(DOT) : 3082
Packing group (DOT) : III - Minor Danger
DOT Symbols : G - Identifies PSN requiring a technical name
Transport document description : UN3082 Environmentally hazardous substances, liquid, n.o.s., 9, III
Proper Shipping Name (DOT) : Environmentally hazardous substances, liquid, n.o.s.
Contains Statement Field Selection (DOT) :
Class (DOT) : 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140
Division (DOT) : 9
Hazard labels (DOT) : 9 - Class 9 (Miscellaneous dangerous materials)



Dangerous for the environment : No

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DOT Special Provisions (49 CFR 172.102)	: 8 - A hazardous substance that is not a hazardous waste may be shipped under the shipping description "Other regulated substances, liquid or solid, n.o.s.", as appropriate. In addition, for solid materials, special provision B54 applies. 146 - This description may be used for a material that poses a hazard to the environment but does not meet the definition for a hazardous waste or a hazardous substance, as defined in 171.8 of this subchapter, or any hazard class as defined in Part 173 of this subchapter, if it is designated as environmentally hazardous by the Competent Authority of the country of origin, transit or destination. 173 - An appropriate generic entry may be used for this material. 335 - Mixtures of solids that are not subject to this subchapter and environmentally hazardous liquids or solids may be classified as "Environmentally hazardous substances, solid, n.o.s," UN3077 and may be transported under this entry, provided there is no free liquid visible at the time the material is loaded or at the time the packaging or transport unit is closed. Each transport unit must be leak-proof when used as bulk packaging. IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672). T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 155
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 203
DOT Packaging Bulk (49 CFR 173.xxx)	: 241
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: No limit
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: No limit
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
Emergency Response Guide (ERG) Number	: 171
Other information	: No supplementary information available.

14.3. Air and sea transport

IMDG

UN-No. (IMDG)	: 3082
Proper Shipping Name (IMDG)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Transport document description (IMDG)	: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III
Class (IMDG)	: 9 - Miscellaneous dangerous substances and articles
Packing group (IMDG)	: III - substances presenting low danger

IATA

UN-No. (IATA)	: 3082
Proper Shipping Name (IATA)	: Environmentally hazardous substance, liquid, n.o.s.
Transport document description (IATA)	: UN 3082 Environmentally hazardous substance, liquid, n.o.s., 9, III
Class (IATA)	: 9 - Miscellaneous Dangerous Goods
Packing group (IATA)	: III - Minor Danger

SECTION 15: Regulatory information

15.1. National regulations

Silver (7440-22-4)
Listed on the Canadian DSL (Domestic Substances List)
Talc (Mg3H2(SiO3)4) (14807-96-6)
Listed on the Canadian DSL (Domestic Substances List)
Magnesium oxide (MgO) (1309-48-4)
Listed on the Canadian DSL (Domestic Substances List)
Carbonic acid, magnesium salt (1:1) (546-93-0)
Listed on the Canadian DSL (Domestic Substances List)

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Castor oil (8001-79-4)

Listed on the Canadian DSL (Domestic Substances List)

15.2. International regulations

Silver (7440-22-4)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Japanese Pollutant Release and Transfer Register Law (PRTR Law)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on CICR (Turkish Inventory and Control of Chemicals)

Talc (Mg₃H₂(SiO₃)₄) (14807-96-6)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on CICR (Turkish Inventory and Control of Chemicals)

Magnesium oxide (MgO) (1309-48-4)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on CICR (Turkish Inventory and Control of Chemicals)

Carbonic acid, magnesium salt (1:1) (546-93-0)

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Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on CICR (Turkish Inventory and Control of Chemicals)

Castor oil (8001-79-4)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
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Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on CICR (Turkish Inventory and Control of Chemicals)

SECTION 16: Other information

Other information : None.

Full text of H-phrases:

H320	Causes eye irritation
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

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according to the Hazardous Products Regulation (February 11, 2015)

SDS Canada (GHS)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.