

# SILVER FERN CHEMICAL, INC.

## Safety Data Sheet

### Fernol 810-4.5 SYN

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

##### 1.1. Product identifier

Trade name: Fernol 810-4.5 SYN  
Chemical description: Ethoxylated fatty alcohols.

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

Recommended use:  
Industrial uses.

##### 1.3. Details of the supplier of the safety data sheet

###### Distributor

Silver Fern Chemical, Inc.  
2226 Queen Anne Avenue North, Suite C  
Seattle WA 98109, USA  
Phone: 1-866-282-3384

1.4. 24 Hour Emergency Contact  
Infotrac 1-800-535-5053 (USA & Canada)  
Outside USA & Canada 1-352-323-3500

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#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

Following GHS and EC regulation criteria 1272/2008 (CLP)  
Danger, Eye Dam. 1, Causes serious eye damage.

Adverse physicochemical, human health and environmental effects:

No other hazards

##### 2.2. Label elements



Danger

Hazard statements:

H318 Causes serious eye damage.

Precautionary statements:

P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER or doctor/physician.

Special Provisions:

None

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

##### 2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:

No other hazards

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#### SECTION 3: Composition/information on ingredients

##### 3.1. Substances

Chemical description: Ethoxylated fatty alcohols.  
REACH No.: Not applicable



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Index number: Not available  
CAS: Trade secret  
EC: Not applicable

3.2. Mixtures  
N.A.

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#### SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Seek immediately medical advice.

Remove contaminated clothing immediately and dispose of safely.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a enough length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not under any circumstances induce vomiting. Seek immediately medical advice.

Do not induce vomiting in order to avoid formation of foam, which can reach the respiratory tract and, if vomiting is necessary, give an antifoam (dimethicone).

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

Not known.

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

Not known.

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#### SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO<sub>2</sub>).

Extinguishing media which must not be used for safety reasons:

Not known.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

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#### SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand



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- Wash with plenty of water.
- 6.4. Reference to other sections  
See also section 8 and 13

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#### SECTION 7: Handling and storage

- 7.1. Precautions for safe handling  
Avoid contact with skin and eyes, inhalation of vapors and mists.  
Don't use empty container before they have been cleaned.  
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.  
Contaminated clothing should be changed before entering eating areas.  
Do not eat or drink while working.  
See also section 8 for recommended protective equipment.
- 7.2. Conditions for safe storage, including any incompatibilities  
Keep away from food, drink and feed.  
Instructions as regards storage premises:  
Adequate ventilation in working area.  
Packaging suggested:  
Plastic drums.
- 7.3. Specific end use(s)  
None in particular

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#### SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters  
No occupational exposure limit available  
DNEL Exposure Limit Values  
N.D.  
PNEC Exposure Limit Values  
N.D.
- 8.2. Exposure controls  
Eye protection:  
Use close fitting safety goggles. (ref. EN 166 , EN 140, EN175).  
Protection for skin:  
Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton. (ref. EN 340).  
Protection for hands:  
Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber. (ref. EN 374).  
Respiratory protection:  
Use adequate protective respiratory equipment. (ref. EN 136, EN 140, EN 141, EN 143, EN 149, EN 405).  
Thermal Hazards:  
None  
Environmental exposure controls:  
None

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#### SECTION 9: Physical and chemical properties

- 9.1. Information on basic physical and chemical properties
- |   |                     |
|---|---------------------|
| Appearance and color:                         | Liquid              |
| Odor:   | Slight              |
| Odor threshold:                               | N.D.                |
| pH:   | 5.5 - 7.5           |
| Melting point/ freezing point:                | N.D.                |
| Initial boiling point and boiling range:      | > 212 °F (> 100 °C) |
| Solid/gas flammability:                       | N.D.                |
| Upper/lower flammability or explosive limits: | N.D.                |
| Vapor density:                                | N.D.                |
| Flash point:                                  | > 212 °F (> 100 °C) |



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Evaporation rate:	N.D.
Vapor pressure:	N.D.
Relative density:	approx. 0.93 g/cm3
Solubility in water:	Insoluble
Solubility in oil:	N.D.
Partition coefficient (n-octanol/water):	N.D.
Auto-ignition temperature:	N.D.
Decomposition temperature:	N.D.
Viscosity:	N.D.
Explosive properties:	-N.D.
Oxidizing properties:	N.D.

#### 9.2. Other information

Miscibility:	N.D.
Fat Solubility:	N.D.
Conductivity:	N.D.
Substance Groups relevant properties	N.D.
Osha Flammability:	None

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### SECTION 10: Stability and reactivity

- 10.1. Reactivity  
Stable under normal conditions
- 10.2. Chemical stability  
Stable under normal conditions
- 10.3. Possibility of hazardous reactions  
Stable under normal conditions
- 10.4. Conditions to avoid  
Stable under normal conditions.
- 10.5. Incompatible materials  
Strong oxidizers
- 10.6. Hazardous decomposition products  
Not known,

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### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Toxicological information of the substance:

- a.) acute toxicity:  
Toxicity Oral Rat LD50> 2000 mg/kg. - By analogy to product with similar composition.
- b) skin corrosion/irritation:  
Draize test Skin Rabbit: Not irritant. - By analogy to product with similar composition
- c) serious eye damage/irritation:  
Draize test Eye Rabbit : Very irritant. - By analogy to product with similar composition.
- d) respiratory or skin sensitization:  
Sensitization. Skin Guinea pig : Not sensitizing. - Duration: 20 days. Literature data.

If not differently specified, the information required in Regulation 453/2010/EC listed below must be considered as N.D.:

- a) acute toxicity;
- b) skin corrosion/irritation
- c) serious eye damage/irritation;
- d) respiratory or skin sensitization;
- e) germ cell mutagenicity
- f) carcinogenicity;
- g) reproductive toxicity;
- h) STOT-single exposure
- i) STOT-repeated exposure;
- j) aspiration hazard.

**CARCINOGENIC** Not Carcinogenic IARC/NTP/OSHA

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### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecological information of the substance:



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- a) Aquatic acute toxicity:  
Algae EC50 = 43.72 mg/l - Duration h: 72 - By analogy to product with similar composition.  
Daphnia EC50 = 17.2 mg/l - Duration h: 48 - By analogy to product with similar composition.  
Fish LC50 = 38 mg/l - Duration h: 96 - By analogy to product with similar composition.
- 12.2. Persistence and degradability  
Ecological information of the substance:  
Biodegradability: Rapidly degradable - Test: OECD 301 D - Date: 84% - Notes: By analogy to product with similar composition.
- 12.3. Bioaccumulative potential  
Ecological information of the substance:  
Bioaccumulation: Data not available.
- 12.4. Mobility in soil  
Ecological information of the substance:  
Mobility in soil: Data not available.
- 12.5. Results of PBT and vPvS assessment  
vPvB Substances: None - PBT Substances: None
- 12.6. Other adverse effects  
None  
Use according to criteria of good industrial practice, avoiding product dispersion in the environment.

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### SECTION 13: Disposal considerations

- 13.1. Waste treatment methods  
If possible recover the product, otherwise dispose of in authorized landfill or incinerate in accordance with local regulation.

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### SECTION 14: Transport information

- 14.1. UN number  
N.A.
- 14.2. UN proper shipping name  
Proper Shipping Name: **N.A.**
- 14.3. Transport hazard class(es)  
U.S. DOT: Not regulated  
Road (ADR): Not regulated  
Air (ICAO/IATA): Not regulated  
Sea (IMO/IMDG): Not regulated
- 14.4. Packing group  
ADR-Packing Group: N.A.
- 14.5. Environmental hazards  
N.A.
- 14.6. Special precautions for user  
N.A.



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14.7. Transport in bulk according to Annex fl of MARPOL73/78 and the IBC Code N.A.

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#### SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture Dir. 67/548/EEC (Classification, packaging and labelling of dangerous substances). Dir. 99/45/EEC (Classification, packaging and labelling of dangerous preparations). Dir. 98/24/EC (Risks related to chemical agents at work). Dir. 2000/39/EC (Occupational exposure limit values); Dir. 2006/8/CE. Regulation (CE) n. 1907/2006 (REACH).  
For non-EU Countries, the Material Safety Data Sheet it is prepared following the main principles of Globally Harmonized System of Classification and Labelling of Chemicals (GHS) which are adopted worldwide.

15.2. Chemical safety assessment  
No

Regulatory information USA:

HMIS INFORMATION		HAZARD INDEX: 4 = SEVERE
HEALTH	1	3 = SERIOUS
FLAMMABILITY	1	2 = MODERATE
REACTIVITY	1	1 = SLIGHT
PERSONAL PROT.	B	0 = MINIMAL

B\* Safety glasses, gloves

n Name	CAS	TSCA	CERCLA	Sara302	Sara313
O Ethoxylated fatty alcohols.	Trade secret	Yes	No	No	No

SARA Title III Section 311/312: Immediate (acute) health effects.

State Regulations:

Canadian Regulations: All the ingredients as such or as chemical group are registered in DSL.

Canadian WHMIS Classification: 028.

California Proposition 65: The product may contain traces of chemicals known to the State of California to cause cancer, including 1,4 Dioxane (< 10 ppm) and Ethylene Oxide (< 1 ppm).

California Proposition 65: The product may contain traces of chemicals known to the State of California to cause birth defect or other reproductive harm, including Ethylene Oxide (< 1 ppm).

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#### SECTION 16: Other information

N.A. = Not Applicable

N.D. = No Data available

Full text of phrases referred to in Section 3:

H318 Causes serious eye damage.

This safety data sheet has been completely updated in compliance to Regulation 453/2010/EU.

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

TOXNET - Databases on toxicology, hazardous chemicals, environmental health, and toxic releases;

NIOSH - Registry of toxic effects of chemical substances {1983} - Occupational Health Guidelines for Chemical Hazards (1995) - Pocket Guide to Chemical Hazards (on line)

European Chemical Bureau - ESIS: European chemical Substances Information System; CESIO - Classification and labelling of anionic, nonionic surfactants (January 2000).

M.Sittig-Handbook of toxic and Hazardous Chemicals and Carcinogens- III Ed.

E.R. Plunkett - Handbook of Industrial Toxicology - III Ed. 1991.

Samson Chem. Pub.-Chemical Safety Sheet working safely with hazardous chemical.

SAX'S Dangerous Properties of Industrial Materials. VIII (1993)

ACGIH "2013 TLVs and BEIs".

ILV "1998/24/EC Directive and subsequent addition".

The product must be stored, handled and used according to criteria of good industrial practice and to



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regulations in force. This leaflet is offered for your consideration and guidance only. This leaflet complements the Technical Data Sheet but does not replace it. The information herein contained is given to the best of our knowledge at the time of issue.

Due to the several ways in which the product may be used and the possible interaction with variables not depending on or unknown to the supplier, we also cannot accept any liability whatsoever for any loss or damage however arising from the handling and use of our products.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.  
CAS: Chemical Abstracts Service (division of the American Chemical Society).  
CLP: Classification, Labeling, Packaging.  
DNEL: Derived NO Effect Level.  
EINECS: European Inventory of Existing Commercial Chemical Substances.  
GefStoffVO: Ordinance on Hazardous Substances, Germany.

#### DISCLAIMER OF RESPONSIBILITY

The information on this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this SDS information may not be applicable.



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<b>GHS:</b>	Globally Harmonized System of Classification and Labeling of Chemicals.
<b>IATA:</b>	International Air Transport Association.
<b>IATA-DGR:</b>	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
<b>ICAO:</b>	International Civil Aviation Organization.
<b>ICAO-TI:</b>	Technical Instructions by the "International Civic Aviation Organization" (ICAO).
<b>IMDG:</b>	International Maritime Code for Dangerous Goods.
<b>INCI:</b>	International Nomenclature of Cosmetic Ingredients.
<b>KSt:</b>	Explosion coefficient.
<b>LC50:</b>	Lethal concentration, for 50 percent of test population.
<b>LD50:</b>	Lethal dose, for 50 percent of test population.
<b>LTE:</b>	Long-term exposure.
<b>PNEC:</b>	Predicted No Effect Concentration.
<b>REACH:</b>	Registration Evaluation and Authorization of Chemicals.
<b>RID:</b>	Regulation Concerning the International Transport of Dangerous Goods by Rail.
<b>STE:</b>	Short-term exposure.
<b>STEL:</b>	Short Term Exposure limit.
<b>STOT:</b>	Specific Target Organ Toxicity.
<b>SVHC:</b>	Candidate List of Substances of Very High Concerns.
<b>TLV:</b>	Threshold Limiting Value.
<b>TWATLV:</b>	Threshold Limit Value for the Time Weighted Average 8-hour day. (ACGIH Standard).
<b>WGK:</b>	German Water Hazard Class.
<b>ASTM:</b>	American Society of Testing and Materials.
<b>CBI:</b>	Confidential Business Information
<b>CFR:</b>	Code of Federal Regulations
<b>DOT:</b>	Department of Transportation
<b>EPA:</b>	Environmental Protection Agency
<b>EU :</b>	European Union
<b>FIFRA:</b>	Federal Insecticide, Fungicide and Rodenticide Act
<b>HCS:</b>	Hazard Communication Standard
<b>IARC:</b>	International Agency for the Research on Cancer
<b>IUPAC</b>	International Union of Pure and Applied Chemistry
<b>mg/kg :</b>	Milligram per kilogram
<b>MSDS:</b>	Material Safety Data Sheet
<b>NAFTA:</b>	North American Free Trade Agreement
<b>OSHA:</b>	Occupational Safety and Health Administration
<b>OECD:</b>	The Organization for Economic Cooperation and Development
<b>QSARs:</b>	Quantitative Structure-Activity Relationships
<b>TSCA:</b>	Toxic Substances Control Act
<b>UN:</b>	United Nations
<b>WHMIS:</b>	Workplace Hazardous Materials Information System