

## 1. Identification

<b>Product identifier</b>	<b>STEPOSOL SC</b>		
<b>Other means of identification</b>			
<b>Product code</b>	2144		
<b>Recommended use</b>	Surfactant		
<b>Recommended restrictions</b>	For industrial use only.		
<b>Manufacturer/Importer/Supplier/Distributor information</b>			
<b>Manufacturer</b>			
<b>Company name</b>	Stepan Company		
<b>Address</b>	22 West Frontage Road Northfield, IL 60093 USA		
<b>Telephone</b>	General	1-847-446-7500	
<b>E-mail</b>	Not available.		
<b>Emergency phone number</b>	Medical	1-800-228-5635	
	Chemtrec	1-800-424-9300	
	Chemtrec Int'l	+1 703-527-3887	

## 2. Hazard(s) identification

<b>Physical hazards</b>	Flammable liquids	Category 4
<b>Health hazards</b>	Serious eye damage/eye irritation	Category 1
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
<b>Environmental hazards</b>	Not classified.	
<b>OSHA defined hazards</b>	Not classified.	

### Label elements



<b>Signal word</b>	Danger
<b>Hazard statement</b>	Combustible liquid. Causes serious eye damage. May cause respiratory irritation.
<b>Precautionary statement</b>	
<b>Prevention</b>	Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only outdoors or in a well-ventilated area. Wear protective gloves/eye protection/face protection.
<b>Response</b>	If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. In case of fire: Use appropriate media to extinguish.
<b>Storage</b>	Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	Porous material such as rags, paper, insulation, or organic clay may spontaneously combust when wetted with this material.
<b>Supplemental information</b>	None.

## 3. Composition/information on ingredients

### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Soybean Oil, Methyl Esters		67784-80-9	40 - 70

Chemical name	Common name and synonyms	CAS number	%
Ethyl lactate		97-64-3	40 - 70
Other components below reportable levels			0.01

#### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Skin contact</b>	Wash off with soap and water. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
<b>Ingestion</b>	Rinse mouth. Get medical attention if symptoms occur.
<b>Most important symptoms/effects, acute and delayed</b>	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

#### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	Combustible liquid. Porous material such as rags, paper, insulation, or organic clay may spontaneously combust when wetted with this material.

#### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid inhalation of vapors or mists. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.
<b>Methods and materials for containment and cleaning up</b>	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material.  Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.  Never return spills to original containers for re-use.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

#### 7. Handling and storage

<b>Precautions for safe handling</b>	Keep away from open flames, hot surfaces and sources of ignition. When using do not smoke. Do not get this material in contact with eyes. Avoid breathing mist or vapor. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
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**Conditions for safe storage, including any incompatibilities** Store locked up. Keep away from heat, sparks and open flame. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Keep in an area equipped with sprinklers.

## 8. Exposure controls/personal protection

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.

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

**Eye/face protection** Wear safety glasses with side shields (or goggles) and a face shield.

**Skin protection**

**Hand protection** Wear protective gloves.

**Other** Wear suitable protective clothing.

**Respiratory protection** In case of insufficient ventilation, wear suitable respiratory equipment. If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations** When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

**Appearance** Clear.

**Physical state** Liquid.

**Form** Liquid.

**Color** Yellow.

**Odor** Pungent.

**Odor threshold** Not available.

**pH** 6.5 - 8 (10% in IPA)

**Melting point/freezing point** < 24 °F (< -4.44 °C)

**Initial boiling point and boiling range** 327.2 - 329 °F (164 - 165 °C)

**Flash point** > 141.0 °F (> 60.6 °C) Pinsky-Martens Closed Cup

**Evaporation rate** Estimated slower than ethyl ether.

**Flammability (solid, gas)** Not available.

**Upper/lower flammability or explosive limits**

**Explosive limit - lower (%)** Not available.

**Explosive limit - upper (%)** Not available.

**Vapor pressure** Not available.

**Vapor density** Estimated heavier than air.

**Relative density** Not available.

**Solubility(ies)**

**Solubility (water)** Not available.

**Auto-ignition temperature** Not available.

**Decomposition temperature** Not available.

**Viscosity** < 100 cP @ 25C

**Other information**

**Density** 7.88 lb/gal @ 25C

**Pour point** 25 - 27 °F (-3.89 - -2.78 °C)

**VOC** 53 %

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	May cause irritation to the respiratory system.
<b>Skin contact</b>	No adverse effects due to skin contact are expected.
<b>Eye contact</b>	Causes serious eye damage.
<b>Ingestion</b>	Expected to be a low ingestion hazard.

**Symptoms related to the physical, chemical and toxicological characteristics** Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

### Information on toxicological effects

**Acute toxicity** May cause respiratory irritation. Expected to be a low hazard for usual industrial or commercial handling by trained personnel.

Product	Species	Test Results
STEPOSOL SC		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rabbit	4000 mg/kg ATE mix
<b>Oral</b>		
LD50	Rat	> 5000 mg/kg ATE mix
<b>Skin corrosion/irritation</b>	Prolonged skin contact may cause temporary irritation.	
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.	
<b>Respiratory or skin sensitization</b>		
<b>Respiratory sensitization</b>	Not available.	
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.	
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>	Not listed.	
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)</b>	Not listed.	
<b>US. National Toxicology Program (NTP) Report on Carcinogens</b>	Not listed.	
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.	
<b>Specific target organ toxicity - single exposure</b>	Respiratory tract irritation.	
<b>Specific target organ toxicity - repeated exposure</b>	Not applicable.	
<b>Aspiration hazard</b>	Not applicable.	

## 12. Ecological information

<b>Ecotoxicity</b>	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
<b>Persistence and degradability</b>	No data is available on the degradability of this product.
<b>Bioaccumulative potential</b>	No data available.
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## 13. Disposal considerations

<b>Disposal instructions</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport information

<b>General</b>	The provided transportation classifications are for bulk shipments only and may not be representative of all package/shipment sizes.
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### DOT

<b>UN number</b>	NA1993
<b>UN proper shipping name</b>	Combustible Liquid, N.O.S. (Ethyl lactate)
<b>Transport hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary risk</b>	-
<b>Packing group</b>	III
<b>Special precautions for user</b>	Not available.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not available.

### DOT



## 15. Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### Toxic Substances Control Act (TSCA)

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

### CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

**SARA 304 Emergency release notification**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)****SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** Yes

**Classified hazard categories** Flammable (gases, aerosols, liquids, or solids)  
 Serious eye damage or eye irritation  
 Specific target organ toxicity (single or repeated exposure)

**SARA 313 (TRI reporting)**

Not regulated.

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.**US state regulations****California Proposition 65**

**WARNING:** This product can expose you to chemicals including Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**California Proposition 65 - CRT: Listed date/Developmental toxin**

Methanol (CAS 67-56-1)

Listed: March 16, 2012

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
New Zealand	New Zealand Inventory (NZIoC)	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

<b>Issue date</b>	04-10-2015
<b>Revision date</b>	08-01-2022
<b>Version #</b>	05
<b>HMIS® ratings</b>	Health: 3 Flammability: 2 Physical hazard: 0
<b>NFPA ratings</b>	Health: 3 Flammability: 2 Instability: 0

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**Revision information**

Hazard(s) identification: Disposal  
Hazard(s) identification: Prevention  
Hazard(s) identification: Response  
Hazard(s) identification: Storage  
Composition / Information on Ingredients: Disclosure Overrides  
HazReg Data: International Inventories