

1. Identification

Product identifier	STEPWET DF-95		
Other means of identification			
Product code	0615		
Recommended use	Surfactant		
Recommended restrictions	For industrial use only.		
Manufacturer/Importer/Supplier/Distributor information			
Manufacturer			
Company name	Stepan Company		
Address	22 West Frontage Road Northfield, IL 60093 USA		
Telephone	General	1-847-446-7500	
E-mail	Not available.		
Emergency phone number	Medical	1-800-228-5635	
	Chemtrec	1-800-424-9300	
	Chemtrec Int'l	+1 703-527-3887	

2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 3
OSHA defined hazards	Combustible dust	
Label elements		



Signal word	Danger	
Hazard statement	Harmful if swallowed. Causes skin irritation. Causes serious eye damage. Toxic to aquatic life. Harmful to aquatic life with long lasting effects. May form combustible dust concentrations in air.	
Precautionary statement		
Prevention	Wear eye/face protection. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves.	
Response	If swallowed: Call a poison center/doctor if you feel unwell. If on skin: Wash with plenty of water. 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. Specific treatment (see this label). Rinse mouth. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.	
Storage	Store away from incompatible materials.	
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.	
Hazard(s) not otherwise classified (HNOC)	Product may form explosive dust/air mixture if high concentration of product dust is suspended in air.	
Supplemental information	None.	

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Sulfuric acid, mono-C10-16-alkyl esters, sodium salts (Alternate CAS 151-21-3, 73296-89-6)		68585-47-7	90 - 100
Alcohols, C10-16		67762-41-8	1 - < 3
Sodium sulfate		7757-82-6	< 3.5
Sodium chloride		7647-14-5	< 2
Water		7732-18-5	< 2

4. First-aid measures

Inhalation	If dust from the material is inhaled, remove the affected person immediately to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Wash with plenty of soap and water. Call a POISON CENTER or doctor/physician if you feel unwell. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Eye contact	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.
Ingestion	Rinse mouth. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
Most important symptoms/effects, acute and delayed	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Skin irritation. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water spray. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). Apply extinguishing media carefully to avoid creating airborne dust.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	Class II Dust for National Electric Code (NFPA 70) Explosion hazard: Avoid generating dust; fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. In the event of fire, cool tanks with water spray. Move containers from fire area if you can do so without risk.
Specific methods	Cool containers exposed to flames with water until well after the fire is out.
General fire hazards	May form combustible dust concentrations in air.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. 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 dust from the spilled material. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Collect spillage. If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. Sweep up or vacuum up spillage and collect in suitable container for disposal. Collect dust using a vacuum cleaner equipped with HEPA filter. Minimize dust generation and accumulation. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.

Environmental precautions	Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.
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7. Handling and storage

Precautions for safe handling	Minimize dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Do not get this material in contact with eyes. Do not taste or swallow. Avoid breathing dust. Avoid contact with skin and eyes. Avoid contact with clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Practice good housekeeping. Wash contaminated clothing before reuse. Avoid release to the environment. Do not empty into drains.
Conditions for safe storage, including any incompatibilities	Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Guard against dust accumulation of this material.

8. Exposure controls/personal protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
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. Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing. Eye wash facilities and emergency shower must be available when handling this product.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear eye/face protection. Use tight fitting goggles if dust is generated.
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear appropriate chemical resistant clothing.
Respiratory protection	Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	When using, do not eat, drink or 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	
Physical state	Solid.
Form	Powder. Class II Dust for National Electric Code (NFPA 70) Pmax = 7.7 +/-10%bar Kst = 203 +/-10% bar m/s Minimum Explosible Concentration (MEC) = 30 g/m3 Mean particle size = 18 micrometer
Color	White.
Odor	Not available.
Odor threshold	Not available.
pH	8.5 - 11 (1% aqueous)
Melting point/freezing point	Not available.
Initial boiling point and boiling range	> 212 °F (> 100 °C)
Flash point	Not applicable
Evaporation rate	Estimated slower than ethyl ether
Flammability (solid, gas)	Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure Not determined or unknown

Vapor density Estimated lighter than air

Relative density Not available.

Solubility(ies)

Solubility (water) Not available.

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

Other information

Specific gravity 0.48

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.

Conditions to avoid Contact with incompatible materials. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).

Incompatible materials Strong oxidizing agents.

Hazardous decomposition products Upon decomposition, this product may yield sulfur dioxide and oxides of sulfur.

11. Toxicological information**Information on likely routes of exposure**

Inhalation Inhalation of dusts may cause respiratory irritation. Prolonged inhalation may be harmful.

Skin contact May be harmful in contact with skin. Causes skin irritation.

Eye contact Causes serious eye damage. Dust in the eyes will cause irritation.

Ingestion Harmful if swallowed.

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. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity Harmful if swallowed. May be harmful in contact with skin.

Product	Species	Test Results
STEPWET DF-95		
<u>Acute</u>		
Dermal		
LD50	Rat	> 2000 mg/kg
Oral		
LD50	Rat	1200 mg/kg
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Causes serious eye damage. Dust in the eyes will cause irritation.	
Respiratory or skin sensitization		
Respiratory sensitization	Not available.	
Skin sensitization	This product is not expected to cause skin sensitization.	

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not applicable.

12. Ecological information

Ecotoxicity Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Product		Species	Test Results
STEPWET DF-95			
Aquatic			
<i>Acute</i>			
Algae	EC50	Algae	60 mg/l, 72 hours Cell number
Crustacea	EC50	Crustacea	1.37 - 4.7 mg/l, 48 hours
Fish	LC50	Fish	3.6 mg/l, 96 hours
Components		Species	Test Results
Sulfuric acid, mono-C10-16-alkyl esters, sodium salts (Alternate CAS 151-21-3, 73296-89-6) (CAS 68585-47-7)			
Aquatic			
Crustacea	EC50	Water flea (Ceriodaphnia dubia)	1.18 - 2.21 mg/l, 48 hours
<i>Acute</i>			
Fish	LC50	Fish	3.6 mg/l, 96 hours

Persistence and degradability Readily biodegradable.

Bioaccumulative potential No data available.

Mobility in soil No data available.

Other adverse effects 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

Disposal instructions Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products 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).

Contaminated packaging 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

DOT

Not regulated as dangerous goods.

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 applicable.

15. Regulatory information

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

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

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

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. Massachusetts RTK - Substance List

Not regulated.

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

US. Rhode Island RTK

Not regulated.

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)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory (NZIoC)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
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

Issue date	11-19-2014
Revision date	05-15-2017
Version #	02
Disclaimer	Terms and Conditions. This SDS is designed only as guidance for the products to which it applies. To the greatest extent permitted by applicable law, nothing contained herein creates any legal obligation including contractual obligations, expressed or implied warranties, including any warranties of merchantability or fitness for particular purpose; or confers any intellectual property rights, including rights to use trademarks or a license to use patents, issued or pending. The information contained herein is based on the manufacturer's own study and the work of others, and is subject to change at any time without further notice. There is no warranty, expressed or implied, as to the accuracy, completeness or adequacy of the information contained herein, and neither the provider nor the manufacturer (nor the agents, directors, officers, contractors or employees of either) are liable to any party for any damages of any nature, including direct, special or consequential damages arising out of or in connection with the accuracy, completeness, adequacy or furnishing of any information in this SDS, or in any other way related (directly or indirectly) to this SDS. The receipt and use of this information constitutes consent to these terms and conditions.
Revision information	Product and Company Identification: Product and Company Identification Hazard(s) identification: Hazard statement Hazard(s) identification: Prevention Hazard(s) identification: Hazard(s) not otherwise classified (HNOC) Composition / Information on Ingredients: Disclosure Overrides Composition/information on ingredients: Composition comments Handling and storage: Precautions for safe handling Physical & Chemical Properties: Multiple Properties Stability and reactivity: Hazardous decomposition products Regulatory information: California Prop 65 Other information, including date of preparation or last revision: References Other information, including date of preparation or last revision: Disclaimer HazReg Data: International Inventories GHS: Classification