

Section 1 Identification

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 "cutting edge science for the classroom"

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**CHEMTREC 24 Hour Emergency
 Phone Number (800) 424-9300**
 For laboratory and industrial use only.
 Not for drug, food or household use.

Product	SULFUR
Synonyms	Sulfur Flowers ; Sulfur Flour

Section 2 Hazards identification

Signal word: WARNING
Pictograms: GHS07
Target organs: None known



GHS Classification:
 Skin irritation (Category 2)

GHS Label information: Hazard statement:
 H315: Causes skin irritation.

Precautionary statement:

P264: Wash hands thoroughly after handling.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P302+P352: IF ON SKIN: Wash with plenty of water and soap.
 P332+P313: If skin irritation occurs: Get medical attention.
 P362+P364: Take off contaminated clothing and wash it before reuse.

Hazards not otherwise classified:

Health hazards not otherwise classified (HHNOC) - Combustible dust
 Physical hazards not otherwise classified (PHNOC) - Not Known

Section 3 Composition / information on ingredients

Chemical Name	CAS #	%	EINECS
Sulfur	7704-34-9	100%	231-722-6

Section 4 First aid measures

INGESTION: MAY BE HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: MAY BE HARMFUL IF INHALED. CAUSES RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: CAUSES EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: MAY BE HARMFUL IF ABSORBED THROUGH SKIN. CAUSES SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire fighting measures

Suitable Extinguishing Media: Carbon dioxide, dry chemical, dry sand, alcohol foam.

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Finely dispersed particles form explosive mixtures in air.

Section 6 Accidental release measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Remove all sources of ignition. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from ignition sources.

Section 8 Exposure controls / personal protection

Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
	Sulfur	None established	None established	None established

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical and chemical properties

Appearance: Solid yellow powder or lumps. Odor: Odor of rotten eggs Odor threshold: Data not available. pH: Data not available. Melting / Freezing point: 116-121°C (242-251°F) Boiling point: 444°C (831°F) Flash point: 207°C (405°F) Closed Cup	Evaporation rate (= 1): Not applicable Flammability (solid/gas): Data not available. Explosion limits: Lower / Upper: 3.3% / 46.0% Vapor pressure (mm Hg): 0 @ 138°C (280°F) Vapor density (Air = 1): Data not available Relative density (Specific gravity): 2.04-2.07 @ 21°C (670°F) Solubility(ies): Insoluble in water.	Partition coefficient: Data not available Auto-ignition temperature: 248°C (478°F) Decomposition temperature: Data not available. Viscosity: Data not available. Molecular formula: S Molecular weight: 32.06
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Section 10 Stability and reactivity

Chemical stability: Stable

Hazardous polymerization: Will not occur.

Conditions to avoid: Excessive temperatures, heat, sparks, open flame and other sources of ignition.

Incompatible materials: Reacts violently with strong oxidizing agents. Corrosive to copper and copper alloys. Damp sulfur will corrode steel.

Hazardous decomposition products: Sulfur dioxide.

Section 11 Toxicological information

Acute toxicity: Oral-rat LD50: >5000 mg/kg ; Inhalation-rat LC50: 0.067 mg/L/4hours ; Dermal-rabbit LD50: >2000 mg/kg

Skin corrosion/irritation: Skin-rabbit - Irritant.

Serious eye damage/irritation: Data not available

Respiratory or skin sensitization: Data not available

Germ cell mutagenicity: Data not available

Carcinogenicity: Data not available

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

Reproductive toxicity: Data not available

STOT-single exposure: Data not available

STOT-repeated exposure: Data not available

Aspiration hazard: Data not available

Potential health effects:

Inhalation: Burning sensation, cough, sore throat. May cause inflammation of the the nose and respiratory tract.

Ingestion: Burning sensation, diarrhea.

Skin: Redness. Prolonged or repeated contact may cause dermatitis.

Eyes: Redness, pain, blurred vision.

Signs and symptoms of exposure: See Potential health effects above.

Additional information: RTECS #: WS4250000

Section 12 Ecological information

Toxicity to fish: Brachydanio rerio (fish, fresh water), LC50 = 866 mg/L/96 hours

Toxicity to daphnia and other aquatic invertebrates: Daphnia magna (Crustacea), EC50 = >10,000 mg/L/24 hours

Toxicity to algae: No data available

Persistence and degradability: No data available

Bioaccumulative potential: No data available

Mobility in soil: No data available

PBT and vPvB assessment: No data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport information

Domestic:

UN/NA number: NA1350

Hazard class: 9

Exceptions: No exceptions

Reportable Quantity: No

Shipping name: Sulfur

Packing group: III

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Marine pollutant: No

IMO (International Maritime Organization):

UN/NA number: UN1350

Hazard class: 4.1

Exceptions: Ltd Qty ≤ 5kg

Reportable Quantity: No

Shipping name: Sulphur

Packing group: III

2020 ERG Guide # 133

Marine pollutant: No

Section 15 Regulatory information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA Listed	CERLCA (RQ) Not listed	RCRA code Not listed	DSL Listed	NDSL Not listed	CA Prop 65
Sulfur	Listed	Not listed	Not listed	Listed	Not listed	This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

Section 16 Other information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

Section 1 Identification

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Phone Number (800) 424-9300
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Product	DISH DETERGENT, GREEN
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Synonyms	Dishwashing Liquid, Green
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Section 2 Hazards identification

Signal word: WARNING
Pictograms: None required.
Target organs: None known.

GHS Classification:
 Combustible liquid (Category 4)
 Acute toxicity (Category 5)
 Eye irritation (Category 2B)

GHS Label information: Hazard statement(s):
 H227: Combustible liquid.
 H303: May be harmful if swallowed.
 H320: Causes eye irritation.

Precautionary statement(s):

P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.
 P264: Wash hands thoroughly after handling.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P305+P351+P338: IF IN EYES: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P312: Call a POISON CENTER or doctor if you feel unwell.
 P337+P313: If eye irritation persists: Get medical attention.
 P370+P378: In case of fire: Use dry chemical, alcohol foam, carbon dioxide or water spray to extinguish.
 P403+P235: Store in a well-ventilated place. Keep cool.
 P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Hazards not otherwise classified:

Health hazards not otherwise classified (HHNOC) - Not Known
 Physical hazards not otherwise classified (PHNOC) - Not Known

Section 3 Composition / information on ingredients

Chemical Name	CAS #	%	EINECS
Proprietary anionic surfactants	Not available	89.5 - 93.5%	Not available
Sodium dodecylbenzene sulfonate	25155-30-0	5.5%	246-680-4
Ethyl alcohol	64-17-5	1-5%	200-578-6

Section 4 First aid measures

INGESTION: MAY BE HARMFUL BY INGESTION. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

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

EYE CONTACT: CAUSES IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: MAY CAUSE IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire fighting measures

Suitable Extinguishing Media: Use any media suitable for extinguishing supporting fire

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: There are no unusual fire and explosion hazards associated with the solution.

Section 6 Accidental release measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Absorb with inert dry material, sweep or vacuum up and place in a suitable container for proper disposal. Spill area may be slippery. Flush with plenty of water.

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale vapors, spray or mist. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, well-ventilated area.

Section 8 Exposure controls / personal protection

Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
	Not listed	None established	None established	None established

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If misty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical and chemical properties

<p>Appearance: Green, viscous liquid.</p> <p>Odor: Mild, floral odor.</p> <p>Odor threshold: Not available</p> <p>pH: 6.5 - 7.3</p> <p>Melting / Freezing point: Not available</p> <p>Boiling point: Not available</p> <p>Flash point: 62°C (144°F)</p>	<p>Evaporation rate (= 1): Not available</p> <p>Flammability (solid/gas): N/A</p> <p>Explosion limits: Upper: N/A Lower: N/A</p> <p>Vapor pressure (mm Hg): Not available</p> <p>Vapor density (Air = 1): Not available</p> <p>Relative density (Specific gravity): 1.05 ± 0.02</p> <p>Solubility(ies): Complete.</p>	<p>Partition coefficient: (n-octanol / water): Not available</p> <p>Auto-ignition temperature: Not available</p> <p>Decomposition temperature: Not available</p> <p>Viscosity: Not available</p> <p>Molecular formula: Mixture.</p> <p>Molecular weight: Mixture.</p>
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Section 10 Stability and reactivity

Chemical stability: Stable **Hazardous polymerization:** Will not occur.

Conditions to avoid: Excessive temperatures.

Incompatible materials: Chlorine bleach.

Hazardous decomposition products: None known.

Section 11 Toxicological information

Acute toxicity: Oral-mouse LD50: 2,000 mg/kg [Sodium dodecylbenzene sulfonate]

Skin corrosion/irritation: Data not available

Serious eye damage/irritation: Data not available

Respiratory or skin sensitization: Data not available

Germ cell mutagenicity: Data not available

Carcinogenicity: Data not available

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

Reproductive toxicity: Data not available

STOT-single exposure: Data not available

STOT-repeated exposure: Data not available

Aspiration hazard: Data not available

Potential health effects:

Inhalation: No adverse effects expected.

Ingestion: May be harmful if swallowed in large amounts.

Skin: May cause irritation on prolonged or repeated contact.

Eyes: Causes irritation of direct contact, but no permanent injury is expected.

Signs and symptoms of exposure: To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated. Specific data is not available. Exercise appropriate procedures to minimize potential hazards.

Additional information: RTECS #: Data not available

Section 12 Ecological information

Toxicity to fish: No data available

Toxicity to daphnia and other aquatic invertebrates: No data available

Toxicity to algae: No data available

Persistence and degradability: No data available

Bioaccumulative potential: No data available

Mobility in soil: No data available

PBT and vPvB assessment: No data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport information

UN/NA number: Not applicable

Shipping name: Not Regulated

Hazard class: Not applicable

Packing group: Not applicable

Reportable Quantity: No

Marine pollutant: No

Exceptions: Not applicable

2020 ERG Guide #: Not applicable

Section 15 Regulatory information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65
Sodium dodecylbenzenesulfonate	Listed	1,000 lbs	Not listed	Listed	Not listed	This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.
Ethanol	Listed	Not listed	D001	Listed	Not listed	

Section 16 Other information

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