



HI-VALLEY CHEMICAL

LABORATORY PRODUCTS

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SAFETY DATA SHEET

Hi Valley Chemical

Sulfur

1 PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: Sulfur
Synonyms: Sulphur, Brimstone
SDS Number: R-013
Product Code: 518021-1, 518021-5, 518021-10, 518021-50
Revision Date: 9/14/2015
Version: 1.0
CAS Number: 7704-34-9
Chemical Formula: s
Supplier Details: High Valley Products, Inc.
1134 West 850 North
Centerville, Utah 84014
Emergency: PERS: 800-633-8253
Phone: 801-295-9591
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2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):

Health, Skin corrosion/irritation, 2
Health, Acute toxicity, 5 Dermal
Health, Acute toxicity, 5 Inhalation
Health, Acute toxicity, 5 Oral

GHS Label elements, including precautionary statements

GHS Signal Word: **WARNING**

GHS Hazard Pictograms:



GHS Hazard Statements:

H315 - Causes skin irritation
H313 - May be harmful in contact with skin
H333 - May be harmful if inhaled
H303 - May be harmful if swallowed

GHS Precautionary Statements:

P264 - Wash _ thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P302+352 - IF ON SKIN: Wash with soap and water.
P321 - Specific treatment (see _ on this label).
P332+313 - If skin irritation occurs: Get medical advice/attention.
P362 - Take off contaminated clothing and wash before reuse.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Cas#	%	Chemical Name
7704-34-9	100%	Sulfur

4 FIRST AID MEASURES

Inhalation:	If inhaled, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.
Skin Contact:	Wash with soap and water. Get medical attention if needed.
Eye Contact:	Flush with large amounts of water.
Ingestion:	If swallowed, wash the mouth with plenty of water and give water to drink. If person is unconscious DO NOT give anything to drink. Get medical attention.

5 FIRE FIGHTING MEASURES

Extinguishing media:
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture:
Sulphur oxides

Advice for firefighters:
Wear self-contained breathing apparatus for firefighting if necessary.

6 ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures:**

Wear respiratory protection. Avoid dust formation. Avoid breathing dust, vapours, mist or gas. Ensure adequate ventilation.

Environmental precautions:

Do not let product enter drains.

Methods and materials for containment and cleaning up:

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7 HANDLING AND STORAGE

Handling Precautions:	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed.
Storage Requirements:	Store in cool/dry area.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION**Personal Protective Equipment:**

Sulfur (7704-34-9) [100%]

Personal protective equipment

Respiratory protection: For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Full contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested: Dermatril (KCL 740 / Aldrich Z677272, Size M)

Splash protection: Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested: Dermatril (KCL 740 / Aldrich Z677272, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Eye protection: Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection: impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Exposure Guidelines:

Sulfur (7704-34-9) [100%] : no data available

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Yellow flakes	Odor:	slight rotten egg odor
Physical State:	Solid	Molecular Formula:	S
Odor Threshold:	No data available	Solubility:	insoluble
Spec Grav./Density:	2.07 g/cm ³ at 25 °C (77 °F)	Freezing/Melting Pt.:	No data available
Viscosity:	No data available	Flash Point:	207 °C (405 °F)
Boiling Point:	444.7 °C (832.5 °F)	Vapor Density:	No data available
Partition Coefficient:	No data available	Auto-Ignition Temp:	240 °C (464 °F)
Vapor Pressure:	10 hPa (8 mmHg) at 246 °C (475 °F) 1 hPa (7.5 mmHg) at 200 °C (392 °F)	UFL/LFL:	6.83% (V) / 0.17% (V)
pH:	No data available		
Evap. Rate:	No data available		
Decomp Temp:	No data available		

10 STABILITY AND REACTIVITY

Reactivity:	No data available
Chemical Stability:	Stable under normal conditions.
Conditions to Avoid:	Avoid moisture. Heat, flames and sparks.
Materials to Avoid:	Strong Oxidizing Agents, Amines, Bases
Hazardous Decomposition:	No data available

Sulfur (7704-34-9) [100%]

Information on toxicological effects

Acute toxicity:

Oral LD50 LDLO Oral - rabbit - 175 mg/kg

LD50 Oral - rat - > 2,000 mg/kg

Inhalation LC50 LC50 Inhalation - rat - 4 h - > 9.23 mg/l

Dermal LD50 LD50 Dermal - rabbit - > 2,000 mg/kg

Other information on acute toxicity LDLO Intravenous - rat - 8 mg/kg

LDLO Intravenous - rabbit - 5 mg/kg

LDLO Intraperitoneal - guinea pig - 55 mg/kg

LDLO Intravenous - dog - 10 mg/kg

Skin corrosion/irritation: Skin - rabbit - No skin irritation

Serious eye damage/eye irritation: Eyes - rabbit - No eye irritation

Respiratory or skin sensitization: no data available

Germ cell mutagenicity: no data available

Carcinogenicity:

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.

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

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.

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.

Reproductive toxicity: no data available

Teratogenicity: no data available

Specific target organ toxicity - single exposure (Globally Harmonized System):
no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System):
no data available

Aspiration hazard: no data available

Potential health effects: Inhalation May be harmful if inhaled. Causes respiratory tract irritation. Ingestion May be harmful if swallowed. Skin May be harmful if absorbed through skin. Causes skin irritation. Eyes Causes eye irritation.

Signs and Symptoms of Exposure: Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting., Dermatitis

Synergistic effects: no data available

Additional Information:

RTECS: Not available

Sulfur (7704-34-9) [100%]

Information on ecological effects

Toxicity:
Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - > 180 mg/l - 96 h.
LC50 - other fish - 866 mg/l - 96 h
Toxicity to daphnia EC50 - Daphnia magna (Water flea) - > 5,000 mg/l - 48 h.
and other aquatic invertebrates

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: no data available

13 DISPOSAL CONSIDERATIONS

Sulfur (7704-34-9) [100%]

Waste treatment methods

Product: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging: Dispose of as unused product.

14 TRANSPORT INFORMATION

NON D.O.T. REGULATED: 49 CFR 172.102(C)(1) Code/Special Provision 30

15 REGULATORY INFORMATION

Component (CAS#) [%] - CODES

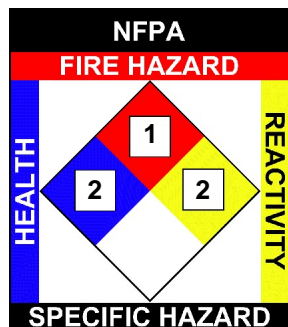
Sulfur (7704-34-9) [n/a%] MASS, PA, TSCA

Regulatory CODE Descriptions

MASS = MA Massachusetts Hazardous Substances List
PA = PA Right-To-Know List of Hazardous Substances
TSCA = Toxic Substances Control Act

NFPA: Health = 2, Fire = 1, Reactivity = 2, Specific Hazard = n/a

HMIS III: Health = 2, Fire = 2, Physical Hazard = 2



HMIS	
HEALTH	<input type="checkbox"/> 2
FLAMMABILITY	2
PHYSICAL HAZARD	2
PERSONAL PROTECTION	<input type="checkbox"/>

Disclaimer:

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