

Elemental Sulphur 0-0-0+90S

SECTION 1. IDENTIFICATION

Product Identifier	Elemental Sulphur 0-0-0+90S
Other Means of Identification	Sulphur 90%
Product Family	Agriculture
Recommended Use	Soil pH adjustment.
Restrictions on Use	Not applicable.
Supplier Identifier	TerraLink Horticulture Inc., 464 Riverside Road, Abbotsford, BC, V2S 7M1, 1-800-661-4559
Emergency Phone No.	CANUTEC, In the event of an emergency involving dangerous goods, call 613-996-6666 or *666 on a cellular phone.
SDS No.	0586

SECTION 2. HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015).
 Classified according to Canada's Hazardous Products Regulations (WHMIS 2015) and the US Hazard Communication Standard (HCS 2012).

Classification

Combustible dust - Category 1; Acute toxicity (Dermal) - Category 4; Skin irritation - Category 2; Eye irritation - Category 2A; Skin sensitization - Category 1B; Carcinogenicity - Category 1A

Label Elements

May form combustible dust concentrations in air.
 May cause cancer.
 Causes skin and eye irritation.
 May be harmful if swallowed, in contact with skin or if inhaled.

Other Hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Sulfur	7704-34-9	80 - 100%		
Bentonite	1302-78-9	7 - 13%		

Notes

Any concentration shown as a range is to protect confidentiality or is due to batch variation

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SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Take precautions to ensure your own safety before attempting rescue (e.g. wear appropriate protective equipment). Remove source of exposure or move to fresh air. Get medical advice or attention if you feel unwell or are concerned.

Skin Contact

Avoid direct contact. Wear chemical protective clothing if necessary. Take off immediately contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. Get medical advice or attention if you feel unwell.

Eye Contact

Rinse the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice or attention.

Ingestion

Do NOT induce vomiting unless directed to do so by medical personnel. Rinse mouth with water. Do not attempt to give anything by mouth to unconscious victim. If victim is alert and not convulsing, rinse mouth and give water to dilute material. Do not induce vomiting. If vomiting occurs, have victim lean forward with head down to avoid breathing in vomit, rinse mouth. Obtain medical attention immediately.

First-aid Comments

Get medical advice or attention if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

If on skin: may cause moderate to severe irritation. Repeated or prolonged exposure can irritate the skin. Symptoms include pain, redness, and swelling. If in eyes: may cause moderate to severe irritation. Symptoms include sore, red eyes, and tearing. If inhaled: can irritate the nose and throat. Can cause lung injury.

Immediate Medical Attention and Special Treatment

Target Organs

Skin.

Medical Conditions Aggravated by Exposure

Skin allergies, skin conditions.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Use flooding quantities of water or other suitable extinguishing agent.

Unsuitable Extinguishing Media

Do not scatter spilled material with high pressure water streams.

Specific Hazards Arising from the Product

Can ignite if strongly heated. See Section 9 (Physical and Chemical Properties) for flash point and explosive limits. Combustible dust. Powder may form explosive dust-air mixture.

In a fire, the following hazardous materials may be generated: corrosive sulfur oxides; very toxic, flammable hydrogen sulfide.

Special Protective Equipment and Precautions for Fire-fighters

Use positive pressure supplied air breathing apparatus, chemical goggles, body covering, protective clothing. Dust explosion hazard. Use water spray or fog to prevent dust formation and minimize risk of explosion. Hydrogen Sulphide is heavier than air and may collect in low lying areas and confined spaces.

Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions

It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up

Avoid generating dust. Avoid dry sweeping. If necessary, use a dust suppressant such as water. Do not use compressed air for clean-up.

Other Information

Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid breathing in this product. Avoid repeated or prolonged skin contact. Do not get in eyes. Only use where there is adequate ventilation. Avoid generating dusts. Do not use near welding operations or other high energy sources. Avoid ignition sources. Do not dry sweep. Wet the product or use explosion-proof HEPA vacuum. Wash hands thoroughly after handling this material.

Conditions for Safe Storage

Store in an area that is: well-ventilated, out of direct sunlight and away from heat and ignition sources. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Not available.

Bentonite: ACGIH TLV TWA 1 mg/m³ respirable fraction

Appropriate Engineering Controls

Do not allow product to accumulate in the air in work or storage areas, or in confined spaces. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles.

Skin Protection

Skin contact should be prevented through the use of suitable protective clothing, gloves and footwear, selected for conditions of use and exposure potential. Consideration must be given both to durability as well as permeation resistance.

Natural rubber, nitrile rubber.

Respiratory Protection

Wear a NIOSH approved air-purifying respirator with an appropriate cartridge.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Dark brown lustrous pastilles.
Odour	Not available
Odour Threshold	Not available
pH	Not available
Melting Point/Freezing Point	115 °C (239 °F) (melting); Not applicable (freezing)

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Initial Boiling Point/Range	Not available
Flash Point	207 °C (method not specified)
Evaporation Rate	Not applicable
Flammability (solid, gas)	Not applicable
Upper/Lower Flammability or Explosive Limit	0.1400 - 0.0035% (Sulfur) (upper); 35% (lower)
Vapour Pressure	Not applicable
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	Not available
Solubility	Insoluble in water; Not available (in other liquids)
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	232 °C (450 °F) (Sulfur)
Decomposition Temperature	Not available
Viscosity	Not applicable (kinematic); Not applicable (dynamic)

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use. Reacts in the presence of heat, high energy sources (e.g. welding arcs), water or humidity.

Conditions to Avoid

Generation of dust. Open flames, sparks, static discharge, heat and other ignition sources. Exposure to air. Water, moisture or humidity.

Incompatible Materials

Oxidizing agents (e.g. peroxides).

Hazardous Decomposition Products

Sulphur dioxide hydrogen Sulphide.

SECTION 11. TOXICOLOGICAL INFORMATION

Information presented below is for the entire product, unless otherwise specified.

Likely Routes of Exposure

Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Sulfur		2500 mg/kg	1222 mg/kg

LC50: No information was located.

Skin Corrosion/Irritation

May cause moderate or severe irritation based on information for closely related materials. Symptoms include pain, redness, and swelling. Repeated or prolonged exposure can irritate or burn the skin.

Serious Eye Damage/Irritation

Human experience shows serious eye irritation.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

May cause nose and throat irritation. Symptoms may include coughing, shortness of breath, difficult breathing and tightness in the chest.

Skin Absorption

May cause Can cause effects as described for inhalation. Symptoms may include redness, rash, swelling and itching.

Ingestion

May cause irritation of the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard

No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Lung injury, irritation of the respiratory system. May cause respiratory tract injury.

Respiratory and/or Skin Sensitization

May cause an allergic reaction (skin sensitization) based on limited evidence.

Carcinogenicity

No information was located.

Reproductive Toxicity

Development of Offspring

No information was located.

Sexual Function and Fertility

No information was located.

Effects on or via Lactation

No information was located.

Germ Cell Mutagenicity

No information was located.

Interactive Effects

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

Environmental information was not located.

Ecotoxicity

Acute Aquatic Toxicity

Chemical Name	LC50 Fish	EC50 Crustacea	ErC50 Aquatic Plants	ErC50 Algae
Sulfur	> 180000 ug/L (Oncorhynchus mykiss (rainbow trout); 96-hour; fresh water; static)	736000 ug/L (Mysidopsis bahia (opossum shrimp); 96-hour; salt water; static)		

Persistence and Degradability

No information was located.

Bioaccumulative Potential

No information was located.

Mobility in Soil

No information was located.

Other Adverse Effects

There is no information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of contents and container in accordance with local, regional, national and international regulations.

SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations.

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Domestic Substances List / Non-Confidential.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.

SECTION 16. OTHER INFORMATION

NFPA Rating **Health - 1** **Flammability - 1** **Instability - 0**

Based on Sulfur

SDS Prepared By Regulatory and Technical Resources

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Key to Abbreviations ACGIH® = American Conference of Governmental Industrial Hygienists
AIHA® = AIHA® Guideline Foundation HSDB® = Hazardous Substances Data Bank
IARC = International Agency for Research on Cancer
NFPA = National Fire Protection Association NIOSH = National Institute for Occupational Safety and Health
NTP = National Toxicology Program
OSHA = US Occupational Safety and Health Administration
RTECS® = Registry of Toxic Effects of Chemical Substances

References CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS). NIOSH Pocket Guide database. National Institute for Occupational Safety and Health. Available from Canadian Centre for Occupational Health and Safety (CCOHS). Supplier's SDS.

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