Section 1. Identification

Product identifier

Product Identity Molten Sulfur (CHE-1110S)

Other means of identification Not Applicable

Relevant identified uses of the substance or mixture and uses advised against

Manufacturing sulfuric acid, sulfur dioxide, fertilizer, carbon disulfide, plastics, enamels, vulcanizing rubber, synthesizing dyes, bleaching wood pulp.

Restrictions on use:
Not available.

Details of the supplier of the safety data sheet

Company Name

Chemtrade Logistics Inc. (Canada)
155 Gordon Baker Road Suite 300
Toronto, Ontario M2H 3N5
(416) 496-5856

Chemtrade Logistics Inc. (US)
90 East Halsey Road, Suite 200
Parsippany, NJ 07054
(800) 228- 8558

Emergency

24 hour Emergency Telephone No.

Chemtrade Emergency Contact: (866) 416-4404 (US and Canada)
CHEMTREC +1-800-424-9300
For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, call CHEMTREC – Day or Night

Customer Service:

For SDS Info: (416) 496-5856
www.chemtradelogistics.com

Section 2. Hazard(s) identification

Proper grounding procedures to avoid static electricity should be followed. Prevent dust accumulation (to minimize explosion hazard). Avoid generating dust.

Classification of the substance or mixture

Flammable Solid, category 2;H228 Flammable solid.

Skin corrosion/irritation category 2;H315	Causes skin irritation.
Aquatic toxicity (acute), category 3;H402	Harmful to aquatic life.
Combustible Dust - Category 1	May form combustible dust concentrations in air.

Label elements

Warning

H228 Flammable solid.
H315 Causes skin irritation.
H402 Harmful to aquatic life.
May form combustible dust concentrations in air.

[Prevention]:
P210 Keep away from heat, sparks, open flames, and other ignition sources - No smoking.
P240 Ground, bond container and receiving equipment.
P241 Use explosion-proof electrical, ventilating, light, equipment.
P264 Wash thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves, eye protection, and face protection.
[Response]:
P302+352 IF ON SKIN: Wash with plenty of soap and water.
P304+312 IF INHALED: Call a poison center or doctor or physician if you feel unwell.
P332+313 If skin irritation occurs: Get medical attention.
P362+364 Take off contaminated clothing and wash it before reuse.
P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.
[Storage]:
No GHS storage statements
[Disposal]:
P501 Dispose of contents or container in accordance with local and national regulations.

Other hazards

Other Hazards: Although this SDS was prepared to address the hazards of molten sulfur, the product transforms into a solid rapidly upon cooling. This document primarily addresses the hazards of the molten state of sulfur, however the non-molten state is also addressed in certain cases. Molten when shipped above melting point 113°C (235.4°F), brittle solid below melting point. Solid particles of sulfur present a combustible dust hazard, and in the right conditions can cause an explosion with sparks, or an ignition source. Product is heated when in molten form, and in contact with an ignition source may present a fire or explosion hazard. Keep product away from sparks, open flames, incompatibilities, and all ignition sources. Risk of thermal burns on contact with molten product. Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

CONTAINS HYDROGEN SULFIDE. Product may contain significant quantities of dissolved hydrogen sulfide gas. H2S has a broad range of effects dependent on the airborne concentration and length of exposure: 0.02 ppm odor threshold, smell of rotten eggs; 10 ppm eye and respiratory tract irritation; 100 ppm coughing, headache, dizziness, nausea, eye irritation, loss of sense of smell in minutes; 200 ppm potential for pulmonary edema after >20-30 minutes; 500 ppm loss of consciousness after short exposures, potential for respiratory arrest; >1000 ppm immediate loss of consciousness, may lead rapidly to death, prompt cardiopulmonary resuscitation may be required. Do not depend on sense of smell for warning. H2S causes rapid olfactory fatigue (deadens sense of smell). There is no evidence that H2S will accumulate in the body tissue after repeated exposure.

May form combustible dust concentrations in air.

This product contains no PBT/vPvB/vPvM chemicals.

This product contains no endocrine disrupting chemicals.

Does NOT contain component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS) per the US EPA PFASMASTER combined list of PFAS chemicals.

Section 3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the Hazardous Products Regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Sulfur **CAS Number: 7704-34-9** **Synonyms: No available information**	**80 - 100**	**Skin corrosion/irritation category 2;H315** **Flammable Solid, category 2;H228**	**No data available**
Hydrogen sulfide **CAS Number: 7783-06-4** **Synonyms: Dihydrogen monosulfide, Dihydrogen sulfide**	**0.5 - 1.5**	**Flammable Gas, category 1;H220** **Gas under pressure;H280** **Acute toxicity(inhalation), category 2:H330** **Aquatic toxicity (acute), category 1;H400**	**No data available**

The actual concentration or concentration range is withheld as a trade secret.
*PBT/vPvB - PBT, vPvM or vPvB-substance.
The full texts of the phrases are shown in Section 16.

The specific chemical identity and/or exact percentage of composition are withheld as a trade secret within the meaning of the OSHA Hazard Communication Standard [29 CFR 1910.1200].

Section 4. First aid measures

Description of first aid measures

General In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation Remove to fresh air, keep patient warm and at rest. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Eyes Irrigate copiously with clean water for at least 30 minutes, holding the eyelids apart and seek medical attention. Remove contact lenses, if present and easy to do. Continue rinsing.

Skin Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser. Drench affected area with water for at least 30 minutes. Obtain medical attention if irritation develops or persists.

Ingestion If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

Overview Risk of thermal burns on contact with molten product in solid form. Causes skin irritation. Inhalation of vapors may cause respiratory irritation.

Acute Health Effects : Risk of thermal burns on contact with molten product in solid form. Causes skin irritation. Inhalation of vapors may cause respiratory irritation.

SKIN: Risk of thermal burns on contact with molten product. In solid form: Redness, pain, swelling, itching, burning, dryness, and dermatitis.

INGESTION: Ingestion of the molten product may cause severe thermal burns. In solid form: Ingestion is likely to be harmful and have adverse effects.

INHALATION: May be harmful if inhaled. Irritating and toxic hydrogen sulfide gas may be present. Inhalation of vapors may cause respiratory irritation.

Warning: Irritating and toxic hydrogen sulfide gas may be present. Greater than 15 - 20 ppm continuous exposure can cause mucous membrane and respiratory tract irritation. 50 - 500 ppm can cause headache, nausea, and dizziness. Continued exposure at these levels can lead to loss of reasoning and balance, difficulty breathing, fluid in the lungs, and possible loss of consciousness. Greater than 500 ppm can cause rapid unconsciousness and death if not promptly revived. This product contains Hydrogen sulfide which may accumulate in confined spaces. Inhalation of Hydrogen sulphide may cause loss of sense of smell, major irritation of the respiratory tract, headache, nausea, vomiting, dizziness, and fluid buildup in the lungs (pulmonary edema), which can be fatal. At 300 ppm unconsciousness may occur after 20 minutes. From 300 to 500 ppm, death can occur within minutes of continuous exposure. Above 500 ppm Hydrogen sulphide may cause

	instantaneous loss of consciousness and immediate death. See section 2 for further details.
Skin	Causes skin irritation.
Chronic effects	Contains a small amount of hydrogen sulfide, symptoms of chronic exposure that may manifest as long-term or permanent effects are headaches, dizziness, nausea, coughing, respiratory irritation, eye irritation, skin irritation, pain in the nose and loss of consciousness.

Section 5. Fire-fighting measures

Extinguishing media

Suitable Extinguishing Media: Water spray, dry chemical, foam, carbon dioxide.

Unsuitable extinguishing media: Apply aqueous extinguishing media carefully to prevent frothing/steam explosion. Do not use: water jet, or heavy water stream. Use of heavy stream of water may spread fire.

Special hazards arising from the substance or mixture

Hazardous decomposition: Molten sulfur can react with hydrocarbons to form hydrogen sulfide and carbon disulfide.

Explosion: 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.

Keep away from heat, sparks, open flames, and other ignition sources - No smoking.

Ground, bond container and receiving equipment.

Use explosion-proof electrical, ventilating, light, equipment.

Advice for fire-fighters

As with all fires, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full-face piece and protective clothing. Persons without respiratory protection should leave area. Wear SCBA during clean up immediately after fire. No smoking.

Fire Hazard: Flammable solid. Sulfur burns with a pale blue flame that may be difficult to see in daylight. Flammable vapors can accumulate in head space of closed systems.

Explosion Hazard: Product is not explosive; however, formation of explosive air-vapor mixture is possible. Water vapor and sulfuric acid vapors may develop in sealed containers from extreme heat exposure producing an explosion hazard. In solid form: Dust explosion hazard in air.

Firefighting Instructions: Do not enter fire area without proper protective equipment, including respiratory protection. Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion. **Exercise caution when fighting any chemical fire.**

Hazardous reactions . Reacts violently with strong oxidizers. Increased risk of fire or explosion.

Hazardous Combustion Products: Sulfur dioxide. Sulphur oxides. May liberate toxic gases.

Other Information: If stored under heat for extended periods or significantly agitated, this material might evolve or release hydrogen sulfide, a flammable gas, which can raise and widen this material's actual flammability limits and significantly lower its auto-ignition temperature. Hydrogen sulfide is a toxic gas that

can be fatal. It also has a rotten egg smell that causes odor fatigue very quickly and shouldn't be used as an indicator for the presence of gas. Do not allow run-off from firefighting to enter drains or water courses.

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Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

General Measures: Avoid all contact with skin, eyes, or clothing. Avoid breathing dust, or vapors. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.

Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Dust Deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).

Nonsparking tools should be used.

Use only outdoors or in a well-ventilated area. Do not breathe mist, spray, and vapours.

Do not get in eyes, on skin, or on clothing. Use appropriate personal protection equipment (PPE). Wear protective gloves, eye protection, face protection (refer to section 8 for more details).

Use good personal hygiene practices. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Promptly remove soiled clothing and wash thoroughly before reuse.

Environmental precautions

Explosion: 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.

Prevent entry to sewers and public waters. Avoid release to environment.

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

Methods and material for containment and cleaning up

Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

Ventilate area.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. If melted: allow liquid to solidify before taking it up. In solid form: Eliminate all ignition sources. Avoid generation of dust during clean-up of spills. Recover the product by vacuuming, shoveling or sweeping. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

For Containment: Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions. Use only non-sparking tools.

Equip cleanup crew with proper protection.

Section 7. Handling and storage

Precautions for safe handling

Handle containers carefully to prevent damage and spillage.

Special Rules on Packaging: Contains Sulfur, may release small amounts of hydrogen sulfide. Hydrogen sulfide is a highly flammable, explosive gas under certain conditions, is a toxic gas, and may be fatal. Gas can accumulate in the headspace of closed containers, use caution when opening sealed containers. Heating the product or containers can cause thermal decomposition of the product and release hydrogen sulfide.

Use only outdoors or in a well-ventilated area. Do not breathe mist, spray, and vapours.

Do not get in eyes, on skin, or on clothing. Use appropriate personal protection equipment (PPE). Wear protective gloves, eye protection, face protection (refer to section 8 for more details).

Use good personal hygiene practices. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

Conditions for safe storage, including any incompatibilities

Keep/Store away from direct sunlight, extremely high or low temperatures, ignition sources, and incompatible materials. Store in a well-ventilated place. Keep container tightly closed. Store in a dry, cool place. Keep in fireproof place.

Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

Handling this product may result in electrostatic accumulation. Use proper grounding procedures. Take action to prevent static discharges. Avoid creating or spreading dust. Use explosion-proof electrical, ventilating, and lighting equipment. Comply with applicable regulations.

Incompatible materials: Strong oxidizers. Under certain conditions: Sodium, tin, nickel, zinc.

Additional Hazards When Processed: Risk of thermal burns on contact with molten product. Flammable vapors can accumulate in head space of closed systems. If stored under heat for extended periods or significantly agitated, this material might evolve or release hydrogen sulfide, a flammable gas, which can raise and widen this material's actual flammability limits and significantly lower its auto-ignition temperature. Hydrogen sulfide is a toxic gas that can be fatal. It also has a rotten egg smell that causes odor fatigue very quickly and shouldn't be used as an indicator for the presence of gas. Proper grounding procedures to avoid static electricity should be followed. Do not pressurize, cut, or weld containers. Avoid

dust production. As a result of flow, agitation, etc., electrostatic charges can be generated. Accumulation and dispersion of dust with an ignition source can cause a combustible dust explosion. Keep dust levels to a minimum and follow applicable regulations.
See section 2 for further details. - [Storage]:

Specific end use(s)

Manufacturing sulfuric acid, sulfur dioxide, fertilizer, carbon disulfide, plastics, enamels, vulcanizing rubber, synthesizing dyes, bleaching wood pulp.

Restrictions on use:

Not available.

Section 8. Exposure controls / personal protection

Control parameters

Exposure Limits

CAS No.	Ingredient	Source	Value
7704-34-9	Sulfur	ACGIH	No Established Limit
		OSHA	No Established Limit
		NIOSH	No Established Limit
		Alberta	10 mg/m^3 TWA
		British Columbia	No Established Limit
		Manitoba	No Established Limit
		New Brunswick	No Established Limit
		Newfoundland and Labrador	No Established Limit
		Nova Scotia	No Established Limit
		Northwest Territories	No Established Limit
		Nunavut	No Established Limit
		Ontario	No Established Limit
		Prince Edward Island	No Established Limit
		Quebec	No Established Limit
		Saskatchewan	No Established Limit
		Yukon	No Established Limit
7783-06-4	Hydrogen sulfide	ACGIH	1 ppm 5 ppm
		OSHA	C 20 ppm, Max above C: 50 ppm 10 mins once
		NIOSH	C 10 ppm (15 mg/m^3) [10-minute]
		Alberta	10 ppm TWA; 14 mg/m^3 TWA
		British Columbia	C 10 ppm
		Manitoba	1 ppm TWA 5 ppm STEL
		New Brunswick	10 ppm TWA; 14 mg/m^3 TWA 15 ppm STEL; 21 mg/m^3 STEL
		Newfoundland and Labrador	1 ppm TWA 5 ppm STEL
		Nova Scotia	1 ppm TWA 5 ppm STEL

		Northwest Territories	10 ppm TWA 15 ppm STEL
		Nunavut	10 ppm TWA 15 ppm STEL
		Ontario	10 ppm TWA 15 ppm STEL
		Prince Edward Island	1 ppm TWA 5 ppm STEL
		Quebec	10 ppm TWAEV; 14 mg/m^3 TWAEV 15 ppm STEV; 21 mg/m^3 STEV
		Saskatchewan	10 ppm TWA 15 ppm STEL
		Yukon	10 ppm TWA; 15 mg/m^3 TWA 15 ppm STEL; 27 mg/m^3 STEL

The exposure limits for nuisance dust are: OSHA PEL: 15 mg/m^3 (50 mppcf*) TWA, ACGIH 10 mg/m^3.

Exposure controls

Respiratory If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Eyes Chemical safety goggles and face shield.

Skin Wear chemically resistant protective gloves. If material is hot, wear thermally resistant protective gloves. Wear chemical fire resistant clothing. With molten material wear thermally protective clothing. **Where higher splash potential exists** (e.g. loading, unloading, line breaking, sampling of the product), wear hard hat and SCBA (Self Contained Breathing Apparatus) chemical splash shroud, fire resistant jacket and plants or bib overalls. Follow all posted PPE requirements.

Engineering Controls Ensure adequate ventilation, especially in confined areas. Gas detectors should be used when flammable gases/vapors may be released. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Use local exhaust or general dilution ventilation or other suppression methods to maintain dust levels below exposure limits. Power equipment should be equipped with proper dust collection devices.
Use only appropriately classified electrical equipment and powered industrial trucks. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed. Ensure all national/local regulations are observed.

Other Work Practices Put on appropriate personal protective equipment. Chemically compatible gloves, Fire resistant clothing, and chemical resistant safety goggles and face shield. With molten material wear thermally protective clothing. Where there is insufficient ventilation: wear respiratory protection.
WHERE HIGHER SPASH POTENTIAL EXISTS (e.g. loading, unloading, line breaking,

sampling of the product), wear hard hat and SCBA, chemical splash shroud, fire resistant jacket and pants or bib overalls. Chemical resistant gloves. Follow all posted PPE requirements **AND** wear goggles and face shield with side and chin protection: chemical and impact resistant. Use only outdoors or in a well-ventilated area. Do not breathe mist, spray, and vapours.
Do not get in eyes, on skin, or on clothing. Use appropriate personal protection equipment (PPE). Wear protective gloves, eye protection, face protection (refer to section 8 for more details).
Use good personal hygiene practices. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details.

Section 9. Physical and chemical properties

Information on basic physical and chemical properties

Physical State	Solid
Color	Opaque liquid when shipped, brittle solid below melting point. Bright yellow to brown.
Odor	Smells like rotten eggs.
Odor threshold	No available information
Melting point / freezing point	114 - 119 °C (237.2 - 246.2 °F)
Initial boiling point and boiling range	444.6 °C (832.28 °F)
Flammability (solid, gas)	Solid
Upper/lower flammability or explosive limits	Lower Explosive Limit: 4% Upper Explosive Limit: 44%
Flash Point	207 °C (404.6 °F) Pensky-Martens Closed Cup
Auto-ignition temperature	232 °C (449.6 °F)
Decomposition temperature	No available information
pH	No available information
Viscosity (cSt)	No available information
Solubility in Water	Water: Insoluble Organic solvent: Soluble in carbon disulfide, benzene, toluene, chloroform, ether, warm aniline, carbon tetrachloride and liquid ammonia.
Partition coefficient n-octanol/water (Log Kow)	No available information
Vapour pressure (Pa)	0.015 kPa (0.11 mm Hg)
Relative Density	1.79
Vapour Density	3.64 [Air = 1]

Particle Characteristics	No available information
Evaporation rate (Ether = 1)	No available information
	Dust hazard explosive
Specific Gravity	1.79

Other information

No other relevant information.

Section 10. Stability and reactivity

Reactivity

Reacts violently with strong oxidizers. Increased risk of fire or explosion.

Chemical stability

Stable under recommended handling and storage conditions (see section 7).

Possibility of hazardous reactions

Hazardous polymerization will not occur.

Conditions to avoid

Direct sunlight, extremely high or low temperatures, heat, hot surfaces, sparks, open flames, incompatible materials, and other ignition sources. Dust accumulation (to minimize explosion hazard).

Incompatible materials

Strong oxidizers. Under certain conditions: Sodium, tin, nickel, zinc.

Hazardous decomposition products

Molten sulfur can react with hydrocarbons to form hydrogen sulfide and carbon disulfide.

Section 11. Toxicological information

Acute toxicity

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Product Acute Toxicity Estimates	NA	NA	NA	6	NA

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Sulfur - (7704-34-9)	> 2,000.00, Rat - Category: NA	> 2,000.00, Rat - Category: NA	No data available.	> 5.43, Rat - Category: NA	No data available.

Hydrogen sulfide - (7783-06-4)	No data available.	No data available.	No data available.	No data available.	444.00, Rat - Category: 2

Carcinogen Data

CAS No.	Ingredient	Source	Value
7704-34-9	Sulfur	IARC	No
		ACGIH	No Established Limit
7783-06-4	Hydrogen sulfide	IARC	No
		ACGIH	No Established Limit

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	2	Causes skin irritation.
Serious eye damage/irritation	---	Not Applicable
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

Possible routes of entry:
Inhalation, ingestion, skin contact, and skin absorption.

Symptoms and effects, both acute and delayed:
Risk of thermal burns on contact with molten product in solid form. Causes skin irritation. Inhalation of vapors may cause respiratory irritation.

Acute Health Effects : Risk of thermal burns on contact with molten product in solid form. Causes skin irritation. Inhalation of vapors may cause respiratory irritation.

SKIN: Risk of thermal burns on contact with molten product. In solid form: Redness, pain, swelling, itching, burning, dryness, and dermatitis.

INGESTION: Ingestion of the molten product may cause severe thermal burns. In solid form: Ingestion is likely to be harmful and have adverse effects.

INHALATION: May be harmful if inhaled. Irritating and toxic hydrogen sulfide gas may be present. Inhalation of vapors may cause respiratory irritation.

Warning: Irritating and toxic hydrogen sulfide gas may be present. Greater than 15 - 20 ppm continuous exposure can cause mucous membrane and respiratory tract irritation. 50 - 500 ppm can cause headache, nausea, and dizziness. Continued exposure at these levels can lead to loss of reasoning and balance,

difficulty breathing, fluid in the lungs, and possible loss of consciousness. Greater than 500 ppm can cause rapid unconsciousness and death if not promptly revived. This product contains Hydrogen sulfide which may accumulate in confined spaces. Inhalation of Hydrogen sulphide may cause loss of sense of smell, major irritation of the respiratory tract, headache, nausea, vomiting, dizziness, and fluid buildup in the lungs (pulmonary edema), which can be fatal. At 300 ppm unconsciousness may occur after 20 minutes. From 300 to 500 ppm, death can occur within minutes of continuous exposure. Above 500 ppm Hydrogen sulphide may cause instantaneous loss of consciousness and immediate death.

Skin Causes skin irritation.

Chronic effects Contains a small amount of hydrogen sulfide, symptoms of chronic exposure that may manifest as long-term or permanent effects are headaches, dizziness, nausea, coughing, respiratory irritation, eye irritation, skin irritation, pain in the nose and loss of consciousness.

Section 12. Ecological information

Toxicity

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Sulfur - (7704-34-9)	No data available.	> 0.01, Daphnia magna	No data available.
Hydrogen sulfide - (7783-06-4)	No data available.	No data available.	No data available.

Persistence and degradability

There is no data available on the preparation itself.

Bioaccumulative potential

No available information

Mobility in soil

No available information

Results of PBT and vPvB assessment

This product contains no PBT/vPvB/vPvM chemicals.

Other adverse effects

No available information

Section 13. Disposal considerations

Waste treatment methods

Dispose of waste material in accordance with all local, regional, federal, provincial, state, territorial and international regulations.

Ecology - Waste Materials: Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

Additional Information: Do not pressurize, cut, or weld containers. Handle empty containers with care because residual product is flammable. Empty containers should be taken for recycle, recovery or waste in accordance with local regulation.

Section 14. Transport information

Classification Method: Classified as per Part 2, Sections 2.1-2.8 of the Transportation of Dangerous Goods Regulations.

DOT (Domestic Surface Transportation)	
UN number	UN2448
UN proper shipping name	UN2448,Sulfur, molten,4.1,III
Transport hazard class(es)	4.1
Sub Class	Not Applicable
Packing group	III

TDG (Domestic Surface Transportation)	
UN number	UN2448
UN proper shipping name	Sulfur, molten
Transport hazard class(es)	4.1
Sub Class	Not Applicable
Packing group	III

IMO / IMDG (Ocean Transportation)	
UN number	UN2448
UN proper shipping name	Sulfur, molten
Transport hazard class(es)	4.1
Sub Class	Not Applicable
Packing group	III

ICAO/IATA	
UN number	UN2448
UN proper shipping name	Sulfur, molten

Transport hazard class(es)	4.1
Sub Class	Not Applicable
Packing group	III

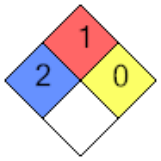
Environmental hazards
IMDG Marine Pollutant: No;
Special precautions for user
No available information

Section 15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance Control Act (TSCA) All components of this material are either listed or exempt from listing on the TSCA Inventory.

NFPA Ranking
Health (blue) :2
Fire (red) :1
Reactivity (yellow) :0
Special (white) :--



Toxic Substance Control Act (TSCA)

Hydrogen sulfide
Sulfur

CERCLA Chemicals and RQs (lbs):

Hydrogen sulfide (100.00)

EPCRA 302 Extremely Hazardous:

Hydrogen sulfide

EPCRA 313 Toxic Chemicals:

Hydrogen sulfide

Canadian Domestic Substance List (DSL):

Hydrogen sulfide
Sulfur

Canadian Non-Domestic Substance List (NDSL):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

Hydrogen sulfide

Sulfur

Pennsylvania RTK Substances (>1%):

Hydrogen sulfide

Sulfur

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 Label Warning:

This product contains no chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Chemical Name (CAS Number)	US TSCA	Australia AICS	Korea ECL	EU EINECS	EU ELINCS	EU SVHC	EN NLP	Mexico INSQ
Sulfur (7704-34-9)	Yes	Yes	Yes	Yes	No	No	No	Yes
Hydrogen sulfide (7783-06-4)	Yes	Yes	Yes	Yes	No	No	No	Yes

Chemical Name (CAS Number)	China IECSC	Japan ENCS	Japan ISHL	Japan PDSCL	Japan PRTR 1	Japan PRTR 2	Philippines PICCS	New Zealand NZIOC
Sulfur (7704-34-9)	Yes	No	No	No	No	No	Yes	Yes
Hydrogen sulfide (7783-06-4)	Yes	Yes	Yes	No	No	No	Yes	Yes

Section 16. Other information

Revision Date 11/24/2025

Revision Number 4

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

The full text of the phrases appearing in section 3 is:

H220 Extremely flammable gas.

H228 Flammable solid.

H280 Contains gas under pressure; may explode if heated.

H315 Causes skin irritation.

H330 Fatal if inhaled.

H400 Very toxic to aquatic life.

Disclaimer: The information presented herein is supplied as a guide to those who handle or use this product. Safe work practices must be employed when working with any materials. It is important that the end user makes a determination regarding the adequacy of the safety procedures employed during the use of this product.

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