MSDS - Sulphur 90%

Issued January 2008

Section 1. Product Information

Family/Chemical Family: Sulfur

Chemical Formula: S_8

CAS No.: 7704-34-9

Distributed by Pestell Minerals & Ingredients, New Hamburg, ON Canada

24 Hour Emergency Telephone (Canutec): 613-996-6666

Section 2. Hazard Ingredients

90% Sulphur (CAS.No. 7704-34-9)

10% Bentonite Clay

Section 3. Physical Data

Material is solid

Appearance and Odour: Earth tone colours. May have slight sulphur odour. Pellet or pastille in shape

Boiling Point: 444°C (832°F)

Specific Gravity: Solid, 2.07/gm/ml

Vapour Density: >1

Melting Point: 119°C (246°F)

Solubility in Water: Insoluble

pH: Neutral when dry

Vapour Pressure (mm Hg at 20°C): Solid, less than 0.0001mm.Hg

Evaporation Rate: N/A

% Volatiles: N/A

Section 4. Fire or Explosion Hazard

Flash Point: Pure Liquid S - 188°C (370°F)

Impure Liquid S - 168°C (335°F)

Auto Ignition Temperature: Dust Clouds 190°C (374°F)

Undispersed Dust 220°C (428°F)

Flammable Limits in Air: Minimum explosion concentration is approximately 35gm per cu. metre (0.035 oz per cu. ft.) Maximum explosive concentration lies between 1000 and 2000 gm/m3 probably about 1400 gm/m3, (1.4 oz per cu. ft.)

Unusual Fire and Explosion Hazards: Dust suspended in air is readily ignited by flame, static electricity or friction spark. Every reasonable step must be taken to minimize dust formation. Handling equipment must be grounded or bonded to avoid static electricity. Keep away from sources of flame or sparks. Detailed recommendations in Manufacturing Chemists Association SD-74 and National Safety Council 612 Bulletins covering "Sulphur" should be followed when handling.

Explosive Limits: LEL 35gm/m3 UEL: 1400 gm/m3

Fire Extinguishing Agents Recommended

A fine water spray or fog is recommended

CO2 or dry chemical

Small fires may be smothered with sand or solid sulfur

Fire Extinguishing Agents to Avoid

Hoses and extinguishers with pressure streams should be avoided where solid sulfur is dusty or where it may create a further hazard by raising more dust clouds.

Special Fire Fighting Precautions

Because burning sulfur evolves sulfur dioxide, breathing apparatus or gas masks approved for use in acid-gas atmosphere should be used. Fumes from unprotected sulfur fires shall be avoided if possible by approaching from the upwind side.

Section 5. Reactivity Data

Stability: Product is stable

Conditions to Avoid: The main hazards are fire and dust explosions

Hazardous Polymerization: Will not occur

Materials to Avoid: Mixtures with chlorates, nitrates or other oxidizing agents may be explosive. Sulphur will react with alkalies or alkaline earths.

Section 6. Toxicological Properties

Inhalation: Sulfur dust may irritate the mucous membranes of the respiratory passages.

Ingestion: Solid sulfur is virtually non-toxic. It can be taken internally in fairly large doses without injury.

Skin: In some individuals, sulfur dust has an irritant action, which may be aggravated by perspiration or moisture.

Eyes: Sulfur dust is capable of irritating the inner surfaces of the eyelids.

Permissible Concentrations: None established

Unusual Chronic Toxicity: N/A

Section 7. Preventive Measures

Personal Protective Equipment

Respiratory Protection: Dust-type respirators shall be provided for dusty conditions. Breathing apparatus must be available for emergency use in case of fire.

Eyes and Face: Dust tight goggles with plastic or rubber frames may be helpful in dusty conditions.

Hands, Arms and Body: Workers whose skin may be sensitive to sulphur dust should button collars, roll sleeves down, and gather trousers at the ankle. Gloves may be helpful.

Other Clothing and Equipment: Hard hat and safety shoes. Fire retardant fabric is recommended. Sulphur impregnated clothing should not be worn.

Ventilation: Local exhaust if dusty conditions prevail

Normal Handling: Avoid breathing dust and keep clothing as free from dust as possible

Storage: Solid becomes corrosive to metals when stored wet. Sulfur/bentonite fertilizer will physically break down when exposed to moisture or water

Spill or Leak: Shovel into disposal containers or cover with tarp. For landfill disposal, mix with limestone 3 times the weight of sulphur.

Special Precautions/Procedures/Label Instructions.

Eye Wash Equipment Near The Work Area

Section 8. First Aid Measures

Skin: Wash with mild soap and water

Eyes: Irrigate thoroughly with copious quantities of plain water for at least 15 minutes

Inadequate irrigation may increase the irritation. Do Not Use Boric Acid.

Section 9. Transportation

Non regulated as per the following exemptions/provisions and observations:

US and Canadian Shipments: Non regulated as per TDGAR's exemption part 2.3 (a) (xxxviii) and 49CFR (Canadian Shipments and Packaging 171.12 (a) and CFR49 (Special Provisions 172.102 pt 30.)

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