

# SUNTEC Lime Sulphur - Material Safety Data Sheet

## 1. IDENTIFICATION

**Product Name:** SUNTEC LIME SULPHUR

**Other name(s):** Lime Sulfur

**Formulation:** Soluble Concentrate

**Recommended Use:** Horticultural spray for dormant season control of fungal diseases, mites and insects on deciduous plants

**Manufacturer and Supplier:** Suntec NZ Ltd, 747 Makerua Rd (SH 57) Tokomaru, New Zealand  
+64 6 3298142 fax +64 6 328041 email suntec@suntec.co.nz internet www.suntec.co.nz

**Packaging:** 5 litre child resistant jerry can Class II or above.

## 2. HAZARDS IDENTIFICATION

**WARNING:** This product is corrosive to the eyes and may be fatal if swallowed or inhaled. May cause irritation and sensitisation by skin contact.

**Risk Phrases:** Contact with acids liberates toxic gas. Irritating to eyes, respiratory system and skin.

**Safety Phrases:** Do not breathe vapour. Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Approximately 200 g per litre Calcium Polysulfide (optimised as Calcium Pentasulfide  $\text{CaS}_5$ ). Water to volume.

May contain unreacted sulphur, calcium salts and reaction by-products including thiosulphates and other sulfides.

## 4. FIRST AID MEASURES

**Inhalation:** Remove victim from area of exposure if safe to do so. Seek medical advice if effects persist.

**Skin Contact:** If skin or hair contact occurs, immediately remove any contaminated clothing and wash skin and hair thoroughly with running water. If swelling, redness, blistering or irritation occurs seek medical assistance.

**Eye Contact:** If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre or a doctor, or for at least 15 minutes.

**Ingestion:** Product damages mucus membranes on contact. Rinse mouth with water. If swallowed, give plenty of water to drink. If vomiting occurs give further water. Seek medical advice.

**Medical attention and special treatment:** Treat symptomatically for exposure to alkaline corrosive material.

## 5. FIRE FIGHTING MEASURES

**Hazards from combustion products:** Non-combustible material.

**Precautions for fire fighters and special protective equipment:** Decomposes on heating emitting toxic fumes, including hydrogen sulphide and oxides of sulfur.

Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition.

**Suitable Extinguishing Media:** Not combustible, however, if material is involved in a fire use: Fine water spray, normal foam, dry agent (carbon dioxide, dry chemical powder).

## 6. ACCIDENTAL RELEASE MEASURES

**Methods and materials for containment and clean up:** Wear protective equipment to prevent skin and eye contact. Contain - prevent run off into drains and waterways. Use absorbent then collect and seal in properly labelled containers. If contamination of sewers or waterways has occurred advise local emergency services.

## 7. HANDLING AND STORAGE

**Conditions for safe storage:** Store in the closed, original container in a dry, cool, well-ventilated area out of direct sunlight. Keep containers closed when not in use - check regularly for leaks.

**Precautions for safe handling:** Keep out of reach of children. Avoid skin and eye contact and breathing in vapour, mists and aerosols.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Occupational Exposure Limits:

**Product:** AOEL - Acceptable Operator Exposure Level - Systemic (mg kg<sup>-1</sup> bw day<sup>-1</sup>) 1.5

### Exposure Standard(s) for decomposition product(s):

Hydrogen sulphide: 8hr TWA = 14 mg/m<sup>3</sup> (10 ppm), 15 min STEL 21 mg/m<sup>3</sup> (15 ppm)

Sulphur Dioxide: 2 ppm 5.2 mg/m<sup>3</sup> TWA 5 ppm 13 mg/m<sup>3</sup> STEL

**Personal Protective Equipment:** Under all conditions of handling concentrate or spray mixture, wear overalls, head covering, elbow-length chemical resistant gloves and face shield or goggles. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water, wash any contaminated clothing.

DO NOT MIX WITH OTHER SPRAY MATERIALS

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:** Liquid

**Colour:** typically Clear Orange – Varies from orange or dark yellow to red

**Odour:** Sulfurous , Volcanic- Rotten egg

**Solubility:** Soluble in water.

**Specific Gravity:** 1.2 g /ml

**Flash Point (°C):** Non-Flammable

**pH:** 10.5-11.5

## 10. STABILITY AND REACTIVITY

**Chemical stability:** Stable under normal conditions of use.

**Conditions to avoid:** Avoid contact with foodstuffs.

**Incompatible materials:** Incompatible with acids.

**Hazardous decomposition products:** Hydrogen sulfide.

**Hazardous reactions:** Reacts with acids liberating hydrogen sulphide, a highly flammable, toxic gas.

## 11. TOXICOLOGICAL INFORMATION

**Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:**

**Ingestion:** Swallowing can result in nausea, vomiting, abdominal pain, diarrhoea, headache, dizziness, stupor, convulsions, paralysis and death.

**Eye contact:** A severe eye irritant. Contamination of eyes can result in permanent injury.

**Skin contact:** Contact with skin can result in irritation. Mammals Dermal LD<sub>50</sub> for rabbit >2000 mg/kg..

**Inhalation:** Material is irritant to the mucous membranes of the respiratory tract. Mammals - Inhalation LC<sub>50</sub> (mg l<sup>-1</sup>) 3.6

**Chronic:** No known long term effects.

**Toxicological Data:** Mammals - Acute oral LD<sub>50</sub> (mg kg<sup>-1</sup>) 1343 : Oral LD<sub>50</sub> for male rats 820mg/kg.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity :

Fish - Acute 96 hour LC<sub>50</sub> (mg l<sup>-1</sup>) > 2.86

Aquatic invertebrates - Acute 48 hour EC<sub>50</sub> (mg l<sup>-1</sup>) > 6.6

Algae - Acute 72 hour EC<sub>50</sub>, growth (mg l<sup>-1</sup>) > 12.6

Avoid contaminating waterways and fishponds. Do not allow spray to drift onto aquatic environments,

## 13. DISPOSAL CONSIDERATIONS

**Disposal methods:** Do not discard into any waterway. Rinse empty container, puncture and recycle or dispose in land fill.

## 14. TRANSPORT INFORMATION

**Road and Rail Transport:** Not classified as Dangerous Goods

### HSNO Classifications

6.1 D	Acutely toxic (oral and inhalation)
6.3 B	Skin Irritant
6.5 B	Contact sensitiser
8.3 A	Eye corrosive
9.1 D	Slightly harmful in the aquatic environment
9.3 C	Harmful to terrestrial vertebrates