1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: YATES LIME SULPHUR (NZ)
Other name(s): Yates Lime Sulfur Spray Fungicide; Yates Lime Sulphur Spray Fungicide
Recommended Use: Fungicide spray to control certain fungal diseases and insects on roses and fruit trees.
Supplier: Yates New Zealand, a division of DuluxGroup (New Zealand) Pty Ltd
ABN 55 133 404 118
Co. 2355191
Street Address: The Gate Industrial Park, 373 Neilson St, Onehunga
Auckland, New Zealand
Telephone Number: +64 9 636 2800
Facsimile: +64 9 636 2802
Emergency Telephone: CHEMCALL 0800 243 622 (ALL HOURS)

2. HAZARDS IDENTIFICATION


Classified as hazardous according to criteria in the HS (Minimum Degrees of Hazard) Regulations 2001.

Classified as hazardous according to criteria in the HS (Minimum Degrees of Hazard) Regulations 2001.

Subclasses:
Subclass 6.3 Category A - Substances that are irritating to the skin.
Subclass 8.3 Category A - Substances that are corrosive to ocular tissue.
Subclass 9.1 Category D - Substances that are slightly harmful to the aquatic environment or are otherwise designed for biocidal action.
Subclass 9.3 Category C - Substances that are harmful to terrestrial vertebrates.

Hazard and Precautionary Information:
Warning.

Causes skin irritation. Causes serious eye damage. May cause long lasting harmful effects to aquatic life. Harmful to terrestrial vertebrates. Keep out of reach of children. Read label before use. Read Safety Data Sheet before use.
Wash hands, arms and face thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment. Immediately call a POISON CENTER or doctor/physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN: Wash with plenty of soap and water. Specific treatment (see First Aid Measures on this Safety Data Sheet). If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing before re-use. In case of a substance that is in compliance with a HSNO approval other than a Part 6A (Group Standards) approval, a label must provide a description of one or more appropriate and achievable methods for the disposal of a substance in accordance with the Hazardous Substances (Disposal) Regulations 2001. This may also include any method of disposal that must be avoided.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS Number</th>
<th>Proportion</th>
<th>Risk Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium polysulfides</td>
<td>1344-81-6</td>
<td>20%</td>
<td>R31 R36/37/38</td>
</tr>
</tbody>
</table>
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Total soluble sulfur</th>
<th>28%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thiosulphate sulfur</td>
<td>2.5% max.</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5 to 100%</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor.

**Inhalation:**
Remove victim from area of exposure - avoid becoming a casualty. 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:**
Rinse mouth with water. If swallowed, give a glass of water to drink. If vomiting occurs give further water. Seek medical advice.

**Medical attention and special treatment:**
Treat symptomatically.

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 those of 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

**Emergency procedures:**
If contamination of sewers or waterways has occurred advise local emergency services.

**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 (soil, sand or other inert material). Collect and seal in properly labelled containers.

7. HANDLING AND STORAGE

**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: No value assigned for this specific material by the New Zealand Occupational Safety and Health Service (OSH). However, Exposure Standard(s) for decomposition product(s):

Hydrogen sulphide: WES-TWA 10 ppm, 14 mg/m³; WES-STE 15 ppm, 21 mg/m³

As published by the New Zealand Occupational Safety and Health Service (OSH).

WES - TWA (Workplace Exposure Standard - Time Weighted Average) - The eight-hour, time-weighted average exposure standard is designed to protect the worker from the effects of long-term exposure.

WES - STEL (Workplace Exposure Standard - Short Term Exposure Limits) - The 15 minute average exposure standard. Applies to any 15 minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STE is not an alternative to the WES-TWA; both short-term and eight-hour, time-weighted average exposures should be determined.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Engineering controls:
Natural ventilation should be adequate under normal use conditions.

Personal Protective Equipment:
Avoid contact with eyes and skin. Do not inhale spray mist. When preparing spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist and a washable hat and elbow-length PVC gloves and goggles. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves and goggles and contaminated clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Physical state:</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour:</td>
<td>Deep Orange</td>
</tr>
<tr>
<td>Odour:</td>
<td>Rotten egg</td>
</tr>
<tr>
<td>Solubility:</td>
<td>Soluble in water.</td>
</tr>
<tr>
<td>Specific Gravity:</td>
<td>1.24</td>
</tr>
<tr>
<td>Relative Vapour Density (air=1):</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapour Pressure (20 °C):</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash Point (°C):</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling Point/Range (°C):</td>
<td>&gt;100</td>
</tr>
<tr>
<td>Decomposition Point (°C):</td>
<td>Not available</td>
</tr>
<tr>
<td>pH:</td>
<td>10.5-11.5</td>
</tr>
<tr>
<td>Viscosity:</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>Not available</td>
</tr>
</tbody>
</table>
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

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. 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 will result in irritation.

Inhalation: Material is irritant to the mucous membranes of the respiratory tract (airways).

Long Term Effects: No information available for the product.

Toxicological Data: No LD50 data available for the product.

12. ECOLOGICAL INFORMATION

Ecotoxicity Avoid contaminating waterways and fishponds. Do not allow spray to drift onto aquatic environments, other crops or desirable plants or outside the target area. Keep children, pets, wildlife and birds off treated areas until the spray is dry.

13. DISPOSAL CONSIDERATIONS

Disposal methods: Refer to local government authority for disposal recommendations. Rinse empty container, puncture and recycle or dispose of safely with domestic rubbish.

14. TRANSPORT INFORMATION

Road and Rail Transport Not classified as a Dangerous Good under NZS 5433:2007 Transport of Dangerous Goods on Land.

15. REGULATORY INFORMATION

Classification: Classified as hazardous according to criteria in the HS (Minimum Degrees of Hazard) Regulations 2001.

Product Name: YATES LIME SULPHUR (NZ) Substance No: 000000022409

Issued: 15/06/2010 Version: 1
Subclasses:
Subclass 6.3 Category A - Substances that are irritating to the skin.
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16. OTHER INFORMATION

Reason(s) for Issue:
First Issue Primary SDS

This safety data sheet has been prepared by SH&E Shared Services.
This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since DuluxGroup Limited cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their DuluxGroup representative or DuluxGroup Limited at the contact details on page 1.

DuluxGroup Limited's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.