



# MATERIAL SAFETY DATA SHEET

## STERISEAL

**Date Issued:** May 2011 and is valid for 3 years from this date.

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**Revision No:** 3

**Print Date:** 3/10/14

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### 1. PRODUCT AND COMPANY IDENTIFICATION

**TRADE NAME:** STERISEAL

**SUPPLIER:** EFEKTO

PO BOX 652147

BENMORE

2010

**TEL No.** 011 287 5700

**EMERGENCY TELEPHONE NUMBERS:**

**SPILLAGES:** 083 1233 911

**Fax:** 086 685 3129

**POISONINGS:**

**Tygerberg Hospital National Poison Centre** 021-9316129 (all hours)

**Griffon Poison Centre** 082 446 8946

**Use:** A fungicidal pruning wound paste for use on roses, grapevines, shrubs and fruit trees after pruning.

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### 2. HAZARDS IDENTIFICATION

- Toxic if swallowed.
- Toxic to fish.
- Irritant.

**Likely routes of exposure:**

Skin, eye contact and ingestion.

**Skin Contact:** Can cause irritation.

**Eye Contact:** Will cause irritation if paste gets into eyes.

**Ingestion:**

Small quantities are unlikely to cause toxic effect. Large quantities may give rise to gastro-intestinal disorders.

**Inhalation:** Unlikely to cause irritation.

**Long term effects:** No adverse effects are known.

**Symbols:** T+; N

**Risk phrases:** R25, R26, R34, R50

**UN No.:** Not regulated.

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Active ingredients:**

Active ingredients.	CAS No.:	EC No.:
Busan 1009 10 g/kg	6317-18-6	228-652-3
8-hydroxyquinolinesulfate 10 g/kg	134-31-6	205—137-1

**Chemical Name:**

**Busan:** methylene dithiocyanate  
and bis(8-hydroxyquinolinium) sulphate

**Chemical Family:** -

**Busan:** -

**bis(8-hydroxyquinolinium) sulphate:** Quinolene

**Chemical Formula:**

**Busan:**  $C_3H_2N_2S_2$

**bis(8-hydroxyquinolinium) sulphate:**  $C_9H_7NO.1/2H_2O_4S$

**NIOSH/RTECS No.:** -

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### 4. FIRST-AID MEASURES

**Skin Contact:**

Wash the contaminated area immediately with soap and water.

**Eye Contact:**

Flush/irrigate eyes with copious amounts of water for at least 10 minutes.

**Ingestion:**

Do not induce vomiting. Give water or milk to drink.

Obtain medical attention if more than a small quantity has been swallowed or when relevant symptoms occur after swallowing.

**Inhalation:**

Not possible in this formulation.

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### 5. FIRE-FIGHTING MEASURES

**Special hazards:** Product is not flammable. In a fire situation, use extinguishers appropriate to burning materials. Material may decompose if heated to release toxic chloride fumes. Fight fire from upwind. Contain any run-off and advise emergency services of nature of Hazard.

**Extinguishing media:** Use dry chemical, CO<sub>2</sub>, water spray, or foam extinguishers. Poisonous gases are produced in fire.

**Protective clothing/equipment:**

Self contained breathing apparatus with full-face piece and protective clothing.



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Extinguish small fires with carbon dioxide, dry powder, or alcohol-resistant foam. Water spray can be used for cooling of unaffected stock, but avoid water coming in contact with the product. Contain water used for fire-fighting for later disposal.

Avoid the accumulation of polluted run-off from the site.

**Fire fighting:**

Remove spectators from surrounding area. Remove container from fire area if possible. Fight fire from maximum distance.

**Fire and thermal decomposition products:**

Cyanide is a metabolite of methylene bis(thiocyanate), and both cyanide and formaldehyde are potential degradates.

**Personal protective equipment:**

Fire-fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus.

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### 6. ACCIDENTAL RELEASE MEASURES

Any spillage of this product should be swept up and placed in a clean, labelled open container for safe disposal. Depending on the degree and nature of contamination, dispose of by sending to an authorised waste disposal facility.

Take care to avoid the contamination of watercourses and drains and inform the appropriate authority in case of accidental contamination of watercourses.

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### 7. HANDLING AND STORAGE

**Handling:**

Wash hands before eating, drinking, chewing gum or smoking.

**Storage:**

You should keep this material in a tightly closed container under an inert atmosphere, and store it at refrigerated temperatures.

Store away from food, drink and animal feeding stuffs. Keep away from children and unauthorised adults. Adhere to local regulations.

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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Occupational exposure limits:**

No specific official limit.

**Engineering Control Measures:**

Engineering controls must be effective to ensure that exposure does not occur.

**Respirator:** Wear a respirator fitted with combined dust and vapour cartridge (MSHA-NIOSH).

**Clothing:** When using do not eat, drink or smoke. Wear suitable clothing including PVC or rubber gloves, safety boots and goggles.

**Gloves:** Wear PVC or rubber gloves.

**Eye protection:**



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Wear dust-proof goggles and face shield when working with powders or dust, unless full-face piece respiratory protection is worn.

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### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** A pink paste.  
**Odour:** Slight  
**Flammability:** Not Flammable.  
**Bulk Density:** Not applicable.  
**pH:** Not applicable.  
**Solubility at 200C (g/L):** Not water soluble.

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### 10. STABILITY AND REACTIVITY

**Storage stability:**

This chemical may be sensitive to prolonged exposure to air  
Stable for up to 2 years under normal cool, dry shaded warehouse conditions.

**Incompatibility:** Not known.

**Hazardous decomposition products:**

Cyanide is a metabolite of methylene bis(thiocyanate), and both cyanide and formaldehyde are potential degradates.

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### 11. TOXICOLOGICAL INFORMATION

No data on the Steriseal formulation.

**Data on the technical product.**

**methylene dithiocyanate technical product:**

**Oral LD<sub>50</sub> rat:** 84, 9 mg/kg  
**Dermal LD<sub>50</sub> rat:** >2000, 0 mg/kg  
**Eye irritation:** Corrosive  
**Dermal irritation:** Moderate to severe.  
**Skin sensitization:** Positive skin sensitizer.  
**Mutagenecity:** Not available.  
**Carcinogenicity:** Not available.

**bis(8-hydroxyquinolinium) sulphate technical:**

**LD<sub>50</sub> Oral rat:** 1250, 0 mg/kg



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**LD<sub>50</sub> Dermal:** >4000 mg/kg (67% SP formulation)

**Eye irritation:** Eye irritant

**Dermal irritation:** Skin irritant.

**Skin sensitization:** No data.

**Mutagenecity:** Not available.

**Carcinogenicity:** Not available.

**Long term toxicity:** No data.

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#### 12. ECOLOGICAL INFORMATION

No data on the finished product.

**methylene dithiocyanate technical product:**

**Birds:** The product is moderately toxic to birds.

**Fish:** The product is highly toxic to fish.

**Daphnia:** The product is highly toxic to Daphnia.

**bis(8-hydroxyquinolinium) sulphate technical:**

Not toxic to Fish and Birds.

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#### 13. DISPOSAL CONSIDERATIONS

**Disposal:** On site disposal of the concentrated product is not acceptable. Ideally, the product should be used for its intended purpose. If facility is available incinerate or dispose of in a proper landfill facility approved by local authority. If not available, contact local Waste disposal experts.

**Package product wastes:**

Emptied containers retain vapours and product residues. Observe all labelled safeguards until container is destroyed. Do not re-use container for any purpose.

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#### 14. TRANSPORT INFORMATION

**UN NUMBER:** Not Regulated.

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#### 15. REGULATORY INFORMATION

**Symbol:** T+; N

**Indication of danger:** Very toxic; Dangerous for the environment



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**Risk phrases:**

- R25** Toxic if swallowed.  
**R43** May cause sensitization by skin contact.  
**R50** Very toxic to aquatic organisms.

**Safety phrases:**

- S 1/2** Keep locked up and out of reach of children.  
**S3** Keep in a cool place.  
**S7** Keep container tightly closed.  
**S13** Keep away from food, drink and animal feeding stuffs.  
**S20/21** When using do not eat, drink or smoke.  
**S26** In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
**S28** After contact with skin, wash immediately with plenty of soap and water.  
**S45** In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
**S61** Avoid release to the environment. Refer to special instructions/Safety data sheets.

**National legislation:**

In accordance with the South African National Road Traffic Act, 1996 (Act 93 of 1996), the Fire Brigade Act, 1987 (Act 99 of 1987) and the Occupational Health and Safety Act, 1993 (Act. No. 85 of 1993)

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**16. OTHER INFORMATION**

**Compiled by:** Danie Fourie

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the PRODUCT AS SUCH. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear.

It is the responsibility of persons in receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces formulations(s) containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.

**REFERENCES**

- Similar product MSDS.
- ECIS [European chemical substances information system].
- ADR 2011, Part 3.
- IMDG Code, 2005 Edition, Vol. 2.
- IATA Dangerous goods regulations, Effective 1 January 2011

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**END OF MSDS.**