



# MATERIAL SAFETY DATA SHEET

Issue date: February 23, 2014

## 1. Commercial Product Name and Supplier

Commercial Product Name: Hercules  
Chemical Name: Potassium phosphites + copper oxychloride  
Empirical Formula:  $K_2HPO_3 + KH_2PO_3 + CuCl_2 \cdot 3Cu(OH)_2$   
Application/Use: Fungicide  
Producer: Luxembourg Industries Ltd., Israel

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## 2. Composition

Components contributing to the hazard:

Active ingredient:

Potassium phosphites, CAS No. 13977-65-6 and 13492-26-7  
Content 580 g/L (304 g/L phosphorous acid equivalent). Classification: R53

Active ingredient:

Copper oxychloride, CAS No. 1332-40-7, Content 350 g/L  
Classification: Xn; R20, R22, N; R50-53

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## 3. Hazards Identification

Irritating to eyes.

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## 4. First Aid Measures

Inhalation: Remove victim from exposure by moving to an area of fresh air.  
If breathing is difficult or absent, send for immediate medical attention.

Ingestion: Seek medical advice immediately and show container label or this material safety data sheet.  
Have person sip a glass of water if able to swallow.  
Do not induce vomiting unless told to do so by the poison center or doctor.  
Do not give anything by mouth to an unconscious person.

Eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes.  
Remove contact lenses, if present, after the first 15 minutes, then continue rinsing eye.  
If irritation persists, get medical advice.

Skin: Rinse skin immediately with plenty of water for 15-20 minutes.  
Call a poison control center or doctor for treatment advice.

Notes to Physician: Gastric lavage, administer BAL, EDTA or Penicillamine. Treat symptomatically.

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## 5. Fire Fighting Measures

Flammability:	Non-flammable
Combustion:	Non-combustible
Special Hazards:	Hazardous in contact with oxidizing materials.

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## 6. Accidental Release Measures

Stop leak if possible. Contain product with an inert diking material. Vacuum up as much as possible. Place reclaimed product in a closed and properly labeled waste drum. Store drum in separate area until proper disposal. Flush residue with water. Wash thoroughly after handling.

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## 7. Handling and Storage

Handling: Do not eat, drink or smoke when handling.

Storage: Store in a dry, cool place. Keep the product in the original container away from food, animal foodstuffs and out of reach of children. Store the product in its original package in a safe place. Separate from chlorates, nitrates and other oxidizing materials.

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## 8. Exposure Controls / Personal Protection

Wear safety goggles and chemical resistant gloves, while handling the product.  
Do not eat, drink or smoke during application.

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## 9. Physical and Chemical Properties

Appearance:	Liquid suspension
Colour:	Green
Odour:	Slight specific odour
Density:	1.65-1.75 g/L
pH Value:	8-10
Solubility in water:	Copper oxychloride - insoluble Potassium phosphite - very soluble

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## 10. Stability and Reactivity

The product is stable.  
The product is incompatible with acids, ammonium salts, strong bases and oxidizing materials.

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## 11. Toxicological Information

Oral toxicity (LD <sub>50</sub> , rat):	> 3000 mg/kg
Dermal toxicity (LD <sub>50</sub> , rat):	> 4000 mg/kg
Inhalation toxicity (4-hr LC <sub>50</sub> , rat):	> 1.35 mg/L (males)
Eye irritation:	Irritating to eyes
Skin irritation:	Not irritating to skin
Dermal sensitization:	Not a sensitizer

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## 12. Ecological Information

Toxicity to fish:	0.535 ppm, 96-hr, carp
Toxicity to avian:	> 2000 mg/kg, 14 days quail
Toxicity to bees:	> 100 microgram/bee

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## 13. Disposal Considerations

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. If spilled, flush with water.

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## 14. Transport Information

Class:	9
UN No.:	3082
Packing Group:	III
Proper Shipping Name:	Environmentally Hazardous Substance, Liquid, N.O.S. (copper oxychloride)

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## 15. Regulatory Information

Classification according to directive 67/548/EC:

R-Phrases:

R22:	Harmful if swallowed
R36:	Irritating to eyes

S-Phrases:

S2:	Keep out of reach of children.
S13:	Keep away from food, drink and animal feeding stuffs.
S36/37/39:	Wear suitable protective clothing, gloves and eye/face protection.

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## 16. Other Information

*The information contained herein is applicable solely to the indicated product, and does not relate to any other use of this product as described. Its use is intended by persons having technical skill and at their own discretion and risk. The information has been developed from sources reliable. This information is furnished without warranty, expressed or implied, including the warranties of merchantability and fitness for a particular purpose is made with respect to the information contained herein. February 23, 2014(EA)*