

# SAFETY DATA SHEET




## SAFFRON

### Section 1: Identification

- 1.1 Product identifier:** Saffron  
**Product Description:** Liquid  
**Product Type:** Suspension Concentrate Fungicide
- 1.2 Relevant identified uses of the substance or mixture and uses advised against**  
Relevant uses: Fungicide  
Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Details of the supplier of the safety data sheet**  
Introlab (Pty) Ltd, 12 Oudepont Street, Wellington Industrial Park, Wellington, 7655, South Africa  
Tel: +27 21 864 2145/6
- 1.4 Emergency telephone number**  
Griffon Poison Information Centre (24 Hour Poisoning Emergency Helpline)  
Telephone number: +27 82 446 8946

### Section 2: Hazardous Identification

- 2.1 Classification of the substance or mixture**  
Classification of this product has been carried out in accordance with GHS guidelines.  
  
Skin irritation Category 2, H315
- 2.2 Label elements**  
**Hazard pictogram(s):**  

- Signal word:** Warning
- Hazardous statement(s):** H315 – Causes skin irritation
- Precautionary Statement(s):** P101 – If medical advice is needed, have product label at hand.  
P102 – Keep out of reach of children.  
P103 – Read label before use.  
P264 – Wash hands thoroughly after handling.  
P280 – Wear protective gloves/face shield/eye protection.

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P302 + P352 – IF ON SKIN: Wash with plenty of soap and water.  
P321 – Specific treatment (see Section 4 on this SDS)  
P332 + P313 – If skin irritation occurs: Get medical attention/advice.  
P362 – Take off contaminated clothing and wash before use.  
P501 – Dispose of the contents/containers in accordance with the current legislation on waste treatment.

### Section 3: Composition / Information on Ingredients

#### 3.1 Components:

<b>Chemical Name:</b>	Sulfur
<b>CAS:</b>	7704-34-9
<b>EC:</b>	231-722-6
<b>Formulation:</b>	Sulfur 800 g/L

### Section 4: First Aid Measures

#### 4.1 Description of first aid measures

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

##### **By inhalation:**

Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Keep person at rest and warm. Treat symptomatically and supportively as and when required. Obtain medical advice if necessary.

##### **By skin contact:**

Remove any contaminated clothing. Wash skin with soap or mild detergent and water for at least 15 minutes. Get medical attention if irritation develops or persists. Wash clothing before re-use.

##### **By eye contact:**

Immediately flush eyes with lukewarm water or saline solution for at least 15 minutes, lifting lower and upper eyelids occasionally. Check for and remove any contact lenses after 5 minutes. Get medical attention if necessary.

##### **By ingestion / aspiration:**

Have victim rinse mouth thoroughly with water. Do not induce vomiting unless directed by medical personnel. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomits. Never give anything by mouth to an unconscious person. Qualified medical personnel should perform administration of oxygen. Seek medical advice if necessary.

**4.2 Most important symptoms and effects, both acute and delayed** No information available.

#### 4.3 Indication of any immediate medical attention and special treatment needed

**Notes to physician:** None.

**Specific treatments:** Treat symptomatically.

## Section 5: Fire Fighting Measures

### 5.1 Fire Extinguishing Media

**Suitable extinguishing media:** Use dry chemical powder for small fires and CO<sub>2</sub> foam for large fires.

**Unsuitable extinguishing media:** No information available.

### 5.2 Special hazards arising from the substance or mixture:

### 5.3 Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. In the event of a fire, wear full protective clothing and self-contained breathing apparatus with full-face piece operated in the pressure demand or other positive pressure mode.

## Section 6: Accidental Release Measures

### 6.1 Personal precautions, protective equipment and emergency procedures:

Avoid accidents, clean up immediately. Wear appropriate personal protective equipment such as splash goggles, gloves and an approved respirator.

### 6.2 Environmental precautions: Keep product away from drains, surface and underground water.

### 6.3 Methods and materials for containment and cleaning up

#### Spills:

Collect in containers for disposal. Wash contaminated surfaces to remove any residues. Minimize use of water to prevent environmental contamination.

#### Large Spills:

Prevent spillage or further leakage if it is safe to do so. Contain spillage with sand bags or by other means. Absorb with earth, sand or absorbent material. Dig up heavily contaminated soil. Flush with water to remove any residues. Keep product and wash water out of drains, sewers, ditches and waterways.

### 6.4 Reference to other sections:

See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information.

## Section 7: Handling & Storage

### 7.1 Precautions for safe handling:

Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used. Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

## 7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage Minimum Temp.: 5 °C Maximum Temp.: 30 °C Maximum time: 24 Months

B.- General conditions for storage

Store in the closed, original container in a dry, cool, well-ventilated area out of direct sunlight. Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5. Keep containers closed when not in use - check regularly for leaks.

## 7.3 Specific end use(s)

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

# Section 8: Exposure Controls / Personal Protection

**8.1 Control parameters:** No specific occupational exposure limit has been established.

## 8.2 Exposure controls

### Appropriate engineering controls:

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

### Hygiene measures:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

### Eye/face protection:

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. Possible: safety glasses with side-shields.

**Hand protection:** Use chemical resistant gloves.

### Body protection:

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

### Other skin protection:

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

### Respiratory protection:

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary.

**Environmental exposure controls:** Prevent product from entry into sewers and water courses.

## Section 9: Physical and Chemical Properties

- 9.1 Information on basic physical and chemical properties  
For complete information, please refer to product datasheet.

### **Appearance**

Physical state:	Liquid
Aspect:	Homogenous Suspension
Colour:	Light Yellow
Odour:	Slight Chemical Odour

### **Volatility:**

Boiling Point at atmospheric pressure:	N/A
Vapour pressure at 20 °C:	No significant volatility, aqueous liquid
Vapour pressure at 50 °C:	No significant volatility, aqueous liquid
Evaporation rate 20 °C:	No data available

### **Product description:**

Density at 20 °C:	1.43 g/m <sup>3</sup>
Molecular weight:	N/A
Relative density at 20 °C:	N/A
Dynamic viscosity at 20 °C:	N/A
Kinematic viscosity at 20 °C:	N/A
Kinematic viscosity at 40 °C:	N/A
pH (1% solution):	6.68 – 6.91
Vapour density at 20 °C:	N/A
Partition coefficient n-octanol/water at 20 °C:	N/A
Solubility in water at 20 °C:	Soluble
Stability:	This product is stable.
Decomposition temperature:	N/A
Melting point/freezing point:	115°C
Explosive properties:	No explosive properties
Oxidising properties:	N/A
Particle Size (D50%):	2.946 – 4.338 µm
Particle Size (D90%):	4.422 – 5.921 µm

### **Flammability:**

Flash point:	Non-Flammable
Auto-ignition temperature:	N/A
Lower flammability limit:	N/A
Upper flammability limit:	N/A

- 9.2 **Other Information:** No additional information.

## Section 10: Stability and Reactivity

- 10.1 **Reactivity:** No information available.

**10.2 Chemical stability:** Chemically stable under the conditions of storage, handling and use.

**10.3 Possibility of hazardous reactions:** No information available.

**10.4 Conditions to avoid:** No information available.

**10.5 Incompatible materials:** No information available.

**10.6 Hazardous decomposition products:** No information available

## Section 11: Toxicological Information

**11.1 Information on toxicological effects:** No information available.

**Dangerous health implications: Avoid** Contact with the skin and the eye since the substances classified as dangerous for this effect.

**Carcinogenicity:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

## Section 12: Ecological Information

**12.1 Toxicity:**

**Sulphur**

Birds: Acute oral LC50 (8d) Bobwhite quail >5000 ppm.

Fish: Non-toxic to fish.

Toxicity to daphnia and other aquatic invertebrates:

LC50 (48h, static) Daphnia magna (Water flea). > 665 mg/ℓ

Aquatic plants: EC50 (72h) *Ankistrodesmus bibaianus* >232 mg/ℓ.

Bees: Non-toxic to bees.

Other beneficial spp.: Non-toxic to *Coccinella septempunctata*, *Amblyseius potentillae*, *Amblyseius finlandicus*, *Anthocoris nemorum* and *Chrysoperla carnea*. Toxic to *Typhlodromus pyri*, *Trichogramma cacoeciae* and *Coccygomimus turionellae*

**12.2 Persistence and degradability:**

The element sulphur is a natural component of the environment. Sulphur has been known and used as a pesticide since very early times, and has been registered for pesticide use in the United States since the 1920's. Sulphur is known to be of low toxicity, and poses very little if any risk to human health. The use of sulphur as a pesticide is not an environmental concern, because it becomes incorporated into the natural sulphur cycle.

**12.3 Bio accumulative potential:** No information available

**12.4 Mobility in soil:** No information available

**12.5 Results of PBT and vPvB assessment:** No information available

**12.6 Other adverse effects:** No information available

**Section 13: Disposal Considerations**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**13.1 Waste treatment methods** Treat as hazardous waste and dispose of in accordance with municipal, provincial and national regulation

**13.2 Product/ packaging disposal:** Treat as hazardous waste and dispose of in accordance with municipal, provincial and national regulations. Waste packaging should be recycled

**Special precautions:**

This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

**Section 14: Transportation Information**

	Land transport (ADR/RID)	Inland waterway transport (AND/ADNR)	Sea Transport (IMDG)	Air Transport (ICAO-TI / IATA-DGR)
14.1 UN Number	Not regulated	Not regulated	Not regulated	Not regulated
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing Group	-	-	-	-
14.5 Environmental hazards	-	-	-	-
14.6 Special precautions for user	No data available	No data available	No data available	No data available
14.7 Transport in bulk according to Annex II of Marpol and IBC Code:	No data available	No data available	No data available	No data available

**Section 15: Regulatory Information**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**  
Occupational Health and Safety Act 1993 Regulation for Hazardous Chemical Substances

**Other legislation:**

EU regulations: Regulation EC 1272/2008 [EU-GHS/CLP]

Other National regulations: National Road Traffic Act, 1996 (ACT NO. 93 of 1996).

SANS 10228:2012- The identification and classification of dangerous goods for transport by road and rail modes.

National Environmental Management: Waste Act 59 of 2008.

## 15.2 Chemical Safety Assessment:

The supplier has not carried out evaluation of chemical safety.

## Section 16: Other Information

### Legislation related to safety data sheets:

This safety data sheet is GHS aligned

### Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

### Principal bibliographical sources:

<http://echa.europa.eu>

### Relevant P-, H- and EUH-phrases (number and full text)

H315 – Causes skin irritation

P101 - If medical advice is needed, have product container or label at hand.

P102 - Keep out of reach of children.

P103 - Read label before use.

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P280 – Wear protective gloves/face shield/eye protection.

P302 + P352 – IF ON SKIN: Wash with plenty of soap and water.

P321 – Specific treatment (see Section 4 on this SDS)

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P362 – Take off contaminated clothing and wash before use.

P501 - Dispose of the contents/containers in accordance with the current legislation on waste treatment

### Notice to reader

#### **DISCLAIMER AND LIMITATION OF LIABILITY**

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