

FARM-AG INTERNATIONAL (Pty) Ltd

P.O. Box 1523, Durban 4000

Head Office : 61 Marshall Dr., Old Mill Industrial Park, Mount Edgecombe **South Africa**

Registration Number: 2005/011761/07

Tel + 27 31 003 3486 • Fax + 27 31 502 5825

SECTION 1 - PRODUCT & COMPANY IDENTIFICATION

Product Name: SODIUM MOLYBDATE 395
Product Use: Fertilizer used as a seed dressing or foliar spray to combat Molybdenum deficiency in agriculture crops.
Effective Date: March 2016
Revision Date: March 2021

24 Hr Emergency Number: 082 771 2712
In case of poisoning:
 Poison Information Centre: 082 446 8946
 Tygerberg Hospital: (021) 931 6129
 Poison Emergency Enquiries (021) 689 5227
In case of Spillage:
 HAZMAT: 0800 147 112

SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS

Product Name: SODIUM MOLYBDATE 395
Common Name: Sodium molybdate
Chemical Name: Sodium molybdate dihydrate
CAS No.: 7631-95-0
Chemical Family: Inorganic salt.
Chemical Formula: $\text{Na}_2\text{MoO}_4 \cdot 2\text{H}_2\text{O}$ (Mol. wt: 241.94)
Use: Used as a seed dressing or foliar spray to combat Molybdenum deficiency in agriculture crops.
Formulation: Molybdenum: 395 g/kg
 Water Soluble Powder

UN No.: 3082
SYMBOLS: X_i
RISK-PHASE(S): R 22, R36/38

SECTION 3 - HAZARD IDENTIFICATION

Likely routes of exposure:
Ingestion, inhalation and skin contact.
Eye contact: May cause eye irritation.
Skin contact: Minimally toxic. May cause mild skin irritation.
Ingestion: Harmful.
Inhalation: Irritating to the mucous membranes and upper respiratory tract.

SECTION 4 - FIRST AID MEASURES AND PRECAUTIONS**4.1. Description of first aid measures****Signs and symptoms of overexposure:**

May cause respiratory tract irritation, coughing and chest discomfort.

May cause a hard to heal rash on prolonged or repeated skin contact. Ingestion of large amounts may cause cramping, vomiting and hypertension. Gout has been associated with Molybdenum poisoning.

Inhalation:

Remove source of contamination or move victim to fresh air. If breathing has stopped, perform artificial respiration and administer oxygen. Keep person warm and at rest. Treat symptomatically and supportively as and when required. Obtain medical advice if necessary.

Skin contact:

Remove contaminated clothing, shoes and leather goods. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. Seek medical attention if necessary.

Eye contact:

Immediately flush the contaminated eyes with gently flowing lukewarm water or saline solution for 20 minutes, holding the eyelid(s) open. Seek medical attention if necessary.

Ingestion:

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Have victim rinse mouth thoroughly with water. Give ½ to 1 glass of water to dilute the material if victim is alert and not convulsing. Do not induce vomiting. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomitus, rinse mouth and administer more water. Administration of gastric lavage or oxygen should be performed by qualified medical personnel. Seek medical advice immediately.

4.2. Indication of any immediate medical attention and special treatment needed

Follow the advices in chapter 4.1. Treat symptomatically.

SECTION 5 - FIRE-FIGHTING MEASURES**Flash point: Not Flammable****Extinguishing agents:**

Extinguish fires with carbon dioxide, dry powder, or alcohol-resistant foam. Water spray as a fog 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.

Personal protective equipment:

Fire-fighters and others that may be exposed should wear full protective impervious clothing, including gloves and eye protection, and self-contained breathing apparatus. Contact with the fumes and vapours should be avoided by staying upwind. Clean all clothing before re-use. Severely contaminated clothing cannot be adequately decontaminated, and must be disposed as a hazardous waste. Shower with soap and water after contact with this product.

SECTION 6 - ACCIDENTAL RELEASE MEASURES (SPILLAGE)**Personal precautions:**

Avoid contact with skin and eyes. Do not inhale spray or fumes. For personal protection see Section 8.

Environmental precautions:

Do not allow entering drains or watercourses. Spillage or uncontrolled discharges into water courses (or public waters) to be reported immediately to the Police and to the Department of Water/Environmental Affairs.

Occupational spill:

For small liquid spills, soak up with lime, damp earth or sand, or other non-combustible absorbent material and place into containers for later disposal. For large liquid spills, contain the liquid for later disposal. In situations where product comes in contact with water, contain contaminated water for later disposal. Do not flush spilled material into drains. Keep spectators away.

SECTION 7 - HANDLING AND STORAGE REQUIREMENTS**Handling:**

Harmful if swallowed. Irritant to eyes and skin. Avoid contact with eyes and skin, and inhalation of dust, spray and vapour. Use with adequate ventilation. Wash hands before eating, drinking, chewing gum, smoking, or using the toilet. Remove clothing immediately if the product gets inside. Then wash skin thoroughly using a non-abrasive soap and put on clean clothing.

Do not apply directly to areas where surface water is present, or to intertidal areas below the mean high water mark. Water used to clean equipment must be disposed of correctly to avoid contamination.

Storage:

Keep out of reach of unauthorized persons, children and animals. Store in its original labelled container in shaded, well-ventilated area. Store in dry area. Not to be stored next to foodstuffs and water supplies. Local regulations should be complied with.

Specific end use(s): Fertilizers.

SECTION 8 - EXPOSURE CONTROL/PERSONAL PROTECTION

Comply with occupational safety, environmental, fire, and other applicable regulations.

PERSONAL PROTECTIVE EQUIPMENT:**Respirator:**

Where exposure through inhalation may occur when handling and/or when preparing the spray mixture, wear a face mask. If the product is used in dusty or confined conditions or spillage and fire conditions a respirator suitable for protection from dusts and mists of pesticides is adequate.

Clothing:

Employee must wear appropriate protective (impervious) clothing, boots, hat and equipment to prevent repeated or prolonged skin contact with this substance. Do not wear leather clothing.

Gloves:

Employee must wear appropriate chemical resistant protective gloves to prevent contact with this substance.

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The use of safety goggles (full-face shield) is recommended.

Emergency eye wash: Where there is any possibility that an employee's eyes may be exposed to this substance, the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES****Information on basic physical and chemical properties****Appearance:** White crystalline powder.**Odour:** No odour.**pH:** 9.0.5 %**Boiling point:** Sublimes.**Melting point:** 687°C.**Specific gravity:** 3.28.**Vapor density:** 7.1 (Air=1).**Storage stability:** Stable for up to 2 years under normal warehouse storage conditions.**Solubility in water:** Readily soluble in water.**Flash point:** None**SECTION 10 - STABILITY AND REACTIVITY****Stability:**

The product is relatively stable, but is decomposed by strong oxidizing agents. Avoid high temperatures.

Incompatibility: Incompatible with strong oxidizing agents.**Thermal decomposition:** Toxic metal fumes are released when the product decomposes on heating.**SECTION 11 - TOXICOLOGICAL INFORMATION****Acute oral LD₅₀:** 520 mg/kg i.p.r. in rats.**Acute dermal LD₅₀:** 576 mg/kg i.p.r. in rats.**Inhalation:** LC₅₀ (4 hours) > 2 080 mg/m³**Acute skin irritation:** The product causes irritation to the skin.**Acute eye irritation:** The product causes eye irritation.**Carcinogenicity, Teratogenicity, Mutagenicity:**

Not listed by IARC, NTP or OSHA as a carcinogen, mutagen, teratogen or neurotoxin.

SECTION 12 - ECOLOGICAL INFORMATION**ECOTOXICOLOGY:****Birds, Fish, Bees, Daphnia, Earthworms, Soil micro-organisms:**

No information available. This section is subject to future development.

SECTION 13 - DISPOSAL CONSIDERATION**Pesticide and container disposal:**

Pesticide disposal: Open dumping or burning of this pesticide is prohibited. Never pour untreated waste or surplus products into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers.

Emptied containers/bags retain vapour and product residues. Observe all labelled safeguards until container is destroyed. Empty the container/bag of excess product into the mixing tank or spray tank of the applicator. Destroy the emptied containers/bags by perforation and flattening. Bury in an approved dumpsite. Do not re-use the empty container/bag for any other purpose. Comply with any local legislation applying to disposal.

Prevent contamination of food, feedstuffs, drinking water and eating utensils.

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UN NUMBER: 3077
ADR/IRD: Not regulated.
IMDG/IMO: Not regulated.
ICAO/IATA: Not regulated.

SECTION 15 - REGULATORY INFORMATION**Risk phrase(s):****Symbol:** Xi**Risk phrases:****R 22** Harmful if swallowed.**R 36/38** Irritating to eyes and skin.**Safety phrases:****S 1/2** Keep out of reach children.**S 13** Keep away from food, drink and animal feeding stuffs.**S 22** Do not breathe dust.**S 24/25** Avoid contact with skin and eyes.**S 26** In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.**S 36/37/39** Wear suitable protective clothing, gloves and eye/face protection.**S 61** Avoid release to the environment. Refer to special instructions/safety data sheets.**SECTION 16 - OTHER INFORMATION****Packaging:**

Packed in 0.5 kg, 01 kg, 02 kg, 05 kg, 20 kg and 25 kg paper bags or plastic containers and labeled according to South African regulations and guidelines.

Disclaimer:

The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions or recommendations are not followed.

All information is given in good faith but without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.

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