1. IDENTIFICATION OF THE SUBSTANCE

Product Name: SODIUM MOLYBDATE
Common Name: Sodium molybate
Chemical Name of the Substance: Sodium molybdate dihydrate
CAS No.: 7631-95-0
Chemical Family: Inorganic salt.
Chemical Formula: Na$_2$MoO$_4$.2H$_2$O (Mol. wt: 241.94)
Use: Used as a seed dressing or foliar spray to combat Molybdenum deficiency in agriculture crops.
Formulation: Sodium molybdate dihydrate 99.5 % (=Molybdenum: 395 g/kg)
Water Soluble Powder
UN No.: 3082

Supplier: Universal Crop Protection (Pty) Ltd.
PO Box 801
Kempton Park, 1620, South Africa
Telephone: (011) 396 2233
Fax: (011) 396 4666
Website: www.villacrop.co.za

24 Hour Emergency response:
Bateleur: 083 1233 911 or 0860 333 911
In case of Poisoning: Western Cape Poisons
Telephone Service: 0861 555 777
Griffon Poison Information Centre: 082 446 8946

2. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components:
SYMBOLS: Xi
RISK-PHRASE(S): R 22, R36/38

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.

4. FIRST AID MEASURES AND PRECAUTIONS

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: 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.

5. FIRE FIGHTING MEASURES

Fire and explosion hazard: No fire or explosion hazard.
Extinguishing agents: Extinguish small fires with carbon dioxide, dry powder, halon or alcohol-resistant foam. Water spray or fog can be used for larger fires or cooling of unaffected stock.

Firefighting: Remove container from fire area if possible. Contain fire control water for later disposal. Use a recommended extinguishing agent for the type of surrounding fire.

Personal protective equipment: Fire may produce irritating or poisonous vapours (toxic metal fumes), mists or other products of combustion. Fire-fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus.
6. ACCIDENTAL RELEASE MEASURES (SPILLAGE)

**Personal precautions:** Avoid contact with skin and eyes. Do not inhale fumes. For personal protection see Section 8.

**Environmental precautions:** Do not allow to enter drains or water courses. When the product contaminates public waters, inform appropriate authorities in accordance with local regulations.

**Occupational spill:** For small liquid spills, soak up with sand or other suitable non-combustible absorbent material, and place into containers for subsequent disposal. For large spills, contain liquid far ahead of spill. Contain spillage and contaminated water for subsequent disposal. Do not flush spilled material into drains. Keep spectators away.

7. HANDLING AND STORAGE REQUIREMENTS

**Handling:** Harmful if swallowed. Avoid contact with eyes, prolonged contact with skin, and inhalation of fumes. 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:** Store in its original labelled container in a shaded, well-ventilated area, away from heat, sparks and other sources of ignition. Not to be stored next to foodstuffs and water supplies. Keep out of reach of children and animals. Local regulations should be complied with.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

It is essential to provide adequate ventilation. The measures appropriate for a particular worksite depend on how this material is used and on the extent of exposure. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.

**PERSONAL PROTECTIVE EQUIPMENT:** If engineering controls and work practices are not effective in controlling exposure to this material, then wear suitable personal protective equipment including approved respiratory protection.

**Respirator:** An approved respirator suitable for protection from dusts and mists of pesticides is adequate.
12. ECOLOGICAL INFORMATION

ECOTOXICOLOGY:
Birds, Fish, Bees, Daphnia, Earthworms, Soil microorganisms: This section is subject to future development.

13. DISPOSAL CONSIDERATION

Pesticide disposal: Contaminated absorbents, surplus product (in diluted form), etc., should be buried in approved landfill. Comply with any local legislation applying to waste disposal.
Package product wastes: Emptied containers retain vapour and product residues. Observe all labeled safeguards until container is cleaned, reconditioned, or destroyed. Containers must be triple rinsed with water. Containers are not to be reused and should be punctured and transported to a scrap metal facility for recycling or disposal in approved landfill site. Comply with any local legislation applying to disposal.

14. TRANSPORT INFORMATION

UN NUMBER: 3082
ADR/IRD: Not regulated.
IMDG/IMO: Not regulated.
ICAO/IATA: Not regulated.

15. REGULATORY INFORMATION

Symbol: \( \text{Xi} \)
Risk phrases: R 22 Harmful if swallowed.
R 36/38 Irritating to eyes and skin.
Safety phrases: S 2 Keep out of reach children.
S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S 46 If swallowed seek medical advice immediately and show this container and label.
Indication of danger: Irritant.

16. PACKING AND LABELLING

Packed in 1 kg, 2 kg, 5 kg & 10 kg plastic containers and 25 kg woven bags or 3 ply paper bags and labeled according to South African regulations and guidelines.

17. OTHER INFORMATION

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.

END OF DOCUMENT
Compiled: August 1998
Reviewed: June 2015