1. IDENTIFICATION OF THE SUBSTANCE

Product name: TARTAR EMETIC SP
Insecticide

UN Number: 1551

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

Emergency telephone: (011) 396 2233 083 326 9272

24 Hr Emergency Numbers:
Bateluer Trauma: 0860 333 911
(Client: Villa Crop Protection)
Red Cross Poison Information Centre: 021 689 5227
Tygerberg Poison Information Centre: 021 931 6127
Griffon Poison Information Centre: 082 446 8946

2. COMPOSITION / INFORMATION ON INGREDIENTS

Common Name: Tartar emetic
Chemical Name: Antimony potassium tartrate (IUPAC)
CAS No.: 28300-74-5
Chemical Formula: C₈H₄O₁₂Sb₂.3H₂O.2K (Mol. wt.: 635.88)
Use: A water-soluble salt to be sprayed as a bait for control of thrips.
Formulation: tartar emetic: 995 g/kg Water Soluble Powder
Symbols: X₅
Risk-Phrases: R 20/22

3. HAZARD IDENTIFICATION

Toxicity class:
RTECS NUMBER: CC6825000

Likely routes of exposure:
Ingestion, absorption through skin and inhalation. Tartar emetic can affect you when breathed in and by passing through your skin. Exposure can cause poor appetite, rash, nausea, headaches, sore throat and irritation of air passages, with cough. Higher levels can cause abdominal pain, fluid build-up in the lungs and may make the heart beat irregularly or stop. High or repeated exposure may damage the liver or heart muscle. Eye contact can cause irritation.

4. FIRST AID MEASURES AND PRECAUTIONS

Exposure can cause nausea, headache, sore throat and irritate the air passages, causing cough. Higher exposures can cause vomiting, abdominal pain and may cause the heart to beat irregularly or stop, or cause a fluid build-up in the lungs. These can cause death. Eye contact can cause irritation. Skin rash can occur.

Long-Term Effects:
Repeated exposure can cause headaches, poor appetite, dry throat, and loss of sleep. Damage to the liver and heart muscle, with abnormal EKG, may also occur, especially with frequent or higher exposures.

Inhalation:
Remove source of contamination or move victim to fresh air. Keep affected person warm and at rest. Supply oxygen if necessary. Treat symptomatically and supportively. Seek medical advice immediately.

Skin contact:
Remove contaminated clothing, shoes and leather goods. Gently wipe of excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. Seek medical advice if necessary. Persons who become sensitised may require specialised medical management with anti-inflammatory agents.

Eye contact:
Immediately flush eyes with gently flowing cold water or saline solution for 15 to 20 minutes, holding the eyelid(s) open. Seek medical attention immediately.

Ingestion:
Have victim rinse mouth thoroughly with water. Do not induce vomiting, due to the aromatic solvent. Seek medical advice immediately.

Advice to physician:
TDLo; ROUTE: Intravenous; DOSE: 1392 ug/kg.
Toxic Effects: SENSE ORGANS AND SPECIAL SENSES - Mydriasis (pupilliary dilation); BEHAVIORAL - Somnolence (general depressed activity); LUNGS, THORAX, OR RESPIRATION - Dyspnea; REFERENCE: Lancet 210:227, 1926.
LDLo; ROUTE: Intravenous; DOSE: 12 mg/kg/1W-I.
Toxic Effects: LIVER - Other changes; KIDNEY, URETER, AND BLADDER - Other changes; REFERENCE: Lancet 210:227, 1926.
LD50; ROUTE: Intravenous; DOSE: 249 mg/kg/9D-I.
Toxic Effects: BEHAVIOURAL - Hallucinations, distorted perceptions; GASTROINTESTINAL - Nausea or vomiting; NUTRITIONAL AND GROSS METABOLIC - Body temperature increase; REFERENCE: Journal of Tropical Medicine and Hygiene 21:38, 1918.
5. FIRE FIGHTING MEASURES

Fire and explosion hazard:
May decompose on exposure to air. May evolve toxic fumes in a fire.
Extinguishing agents:
Small Fires: Dry chemical, CO₂, Halon, water spray or standard foam.
Large Fires: Water spray, fog or standard foam is recommended. Move container from fire area if you can do it without risk.
Fire fighting:
Move containers from fire area if possible. Fight fire from maximum distance. Stay away from storage tank ends. Contain fire control water for later disposal. Do not scatter material, extinguish only if flow can be stopped. Use flooding amounts of water as a fog, solid streams may be ineffective. Cool containers with flooding amounts of water as far a distance as possible. Use water spray to absorb toxic vapours. Avoid breathing toxic vapours. Keep upwind. Consider evacuation of downwind area if material is leaking.
Personal protective equipment:
Fire may produce irritating or poisonous vapours, 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 breathe in dust or 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 immediately in accordance with local regulations.
Occupational spill:
Do not touch spilled material; stop leak if you can do it without risk. Small Spills: Take up with sand or other non-combustible absorbent material and place into containers for later disposal. Small Dry Spills: With clean shovel place material into clean, dry container and cover; move containers from spill area. Large Spills: Dike far ahead of liquid spill for later disposal. Keep spectators away. Isolate hazard area and deny entry. Ventilate closed spaces before entering.

7. HANDLING AND STORAGE REQUIREMENTS

Handling:
Highly toxic by absorption or if swallowed. Avoid contact with eyes, prolonged contact with skin, and inhalation of dust and vapour. Use with adequate ventilation. Wash hands before eating, drinking, chewing gum, smoking, or using the toilet. Remove clothing immediately if the insecticide 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:
The product must be kept under lock and key. Keep out of reach of unauthorised persons, children and animals. Store in its original labelled container in shaded, well-ventilated area, away from heat, sparks and other sources of ignition. Not to be stored next to foodstuffs and water supplies. Local regulations should be complied with.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

It is essential to provide adequate ventilation. The measures appropriate for a particular work site 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. Limitations of respirator use specified by the approving agency and the manufacturer must be observed.
Clothing:
Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with the substance.
Gloves:
Employee must wear appropriate synthetic protective gloves to prevent contact with this substance.
Eye protection:
The use of full face protection is recommended.
Emergency eye wash: Where there is any possibility that an employee’s eyes may be exposed to this substance,
9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:
Clear colourless crystals, odourless, sweet metallic taste.
Relative density:
2.6 at 20°C.
Storage stability:
Considered stable for a period of 2 years in normal air, warehouse and light conditions.
Boiling/Melting point:
Not applicable.
pH:
Aqueous solution slightly acidic.
Solubility in organic solvents:
Insoluble in alcohol.
Flash point:
Not applicable. > 500°C

10. STABILITY AND REACTIVITY

Stability:
Stable.
Reactivity:
Materials to avoid: Alkalines, carbonates, strong oxidizing agents.
Hazardous Decomposition components:
Carbon monoxide, Carbon dioxide.

11. TOXICOLOGICAL INFORMATION

Acute oral LD₅₀:
115 mg/kg for rats and rabbits.
Dermal LD₅₀ intraperitoneal:
11 mg/kg in rats.
Acute eye irritation:
Irritating to eyes.
Skin irritation:
Irritating to skin.
Inhalation:
Highly irritating to mucous membranes.
Carcinogenicity, Neurotoxicity, Teratogenicity:
Not listed.

12. ECOLOGICAL INFORMATION

Degradability:
Does not readily biodegrade.

ECOTOXICOLOGY:
Harmful to aquatic life in very low concentrations. May be dangerous if it enters water intakes.

Birds:
No data available.

Fish:
20 ppm (96 hr) fathead minnow fresh (soft) water
12 ppm (96 hr) fathead minnow/TLm/ fresh (hard) water
as antimony.

Bees:
No data available.

Daphnia:
No data available.

13. DISPOSAL CONSIDERATION

Pesticide disposal:
Contaminated absorbents, used containers, surplus product, etc., should be burnt at 1000°C in an incinerator, preferably designed for pesticide disposal, or buried in designated landfill. Hydrolysis under alkaline conditions (e.g. sodium hydroxide) is a suitable method to dispose of small quantities of the product. After hydrolysis, dilute and dispose of via the sewage system. Comply with local legislation applying to waste disposal.

Package product wastes:
Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is destroyed. Combustible containers should be disposed of in pesticide incinerators. Metal containers must be crushed and transported to a scrap metal facility for disposal or burial in a designated landfill.

14. TRANSPORT INFORMATION

UN NUMBER: 1551
ICAO/IATA: Antimony potassium tartrate
Proper shipping name: Antimony potassium tartrate
Class: 6.1
Hazard label: Toxic
Packaging group: III
Passenger aircraft: 611 (max 100 kg)
Y611 (max 10 kg)
Cargo aircraft: 619 (max 20 kg)
IMDG/IMO:
Shipping name: Antimony potassium tartrate
Packaging group: III
Label of class: 6.1 Marine pollutant
ADR/IRD:
Group: Antimony potassium tartrate
Substance ID no. 60
15. REGULATORY INFORMATION

Symbol: T+
Indication of danger: Very toxic. Dangerous to the environment.

Risk phrases:
R 26/27/28 Very toxic by inhalation with skin and if swallowed.
R 50/53 Very toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment.

Safety phrases:
S 1/2 Keep locked up and out of reach children.
S 23 Do not breathe vapour or spray.
S 36/37 Wear suitable protective clothing and gloves.
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S 60 This material and its container must be disposed of as hazardous waste.
S 61 Avoid release to the environment. Refer to special instructions.

16. 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.

REFERENCES

- Applicable own physical and chemical, toxicity and ecotoxicity research studies.
- *Agriculture and Public Health; Guide to the Treatment of Poisoning by Chemicals, 1993*
- *MICROMEDEX, Environmental Health & Safety Series. Volume 34.*