

MSMA 720 SL

SAFETY DATA SHEET

1. PRODUCT & COMPANY IDENTIFICATION

Product Name: MSMA 720 SL
Pesticide Classification: Herbicide
UN No.: 2994

Supplier

Enviro Bio-Chem (Pty) Ltd
Co. Reg. No.: 2013/194774/07
44 Kerk Street, Lichtenburg
North West, South Africa 2740

Registration Holder

Erintrade CC t/a RT Chemicals
Co. Reg. No.: CK2001/036403/23
44 Kerk Street, Lichtenburg
North West, South Africa 2740

Telephone: +27 87 231 7261
Fax: 086 541 7948
Website: www.envirobiochem.co.za

24 Hr Emergency Number: Bateleur: +27 83 123 3911

In case of Poisoning:

Poison Information Centre: +27 82 446 8946
Tygerberg Hospital: (+27 21) 931 6129
Poison Emergency Enquiries: (+27 21) 689 5227

Common Name: MSMA 720 g/l SL
Chemical Name: Sodium hydrogen methylarsonate (IUPAC)
Empirical Formula: CH₄AsNaO₃
CAS No.: 2613-80-6
RSA Reg. No.: L8463 Act/Wet No. 36 of/van 1947

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Ingredient Name</u>	<u>Concentration</u>
Monosodium Methanearsonate	720 g/ l min.
Water	663 g/ l

3. HAZARD IDENTIFICATION

Hazard Class: WHO Class II -Moderately hazardous.

Main Hazard: Harmful if swallowed. Mildly irritating to skin and eyes.

Flammability: Non-flammable

Chemical Hazard: May produce gases including HCl, organo chlorides, nitrogen oxides and carbon monoxide when the product is exposed to fire.

Biological Hazard: This product is toxic to aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and non-target plants.

4. FIRST AID MEASURES AND PRECAUTIONS

If poisoning is suspected, do not wait for symptoms to develop. Contact a physician, the nearest hospital, or the nearest Poison Control Centre.

Symptoms of Human Poisoning: Inhalation may cause burning in the chest, with coughing. Prolonged inhalation sometimes causes dizziness. Ingestion usually leads to vomiting, chest pain, abdomen pain and diarrhoea. Headache, mental confusion, and bizarre behaviour are early manifestations of severe poisoning, which may progress to unconsciousness.

First Aid Measures:

Skin Contact Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 - 20 minutes. Call a poison control centre or doctor for treatment advice.

Eye Contact: Hold eye open and rinse slowly and gently with water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control centre or doctor for treatment advice.

Ingestion: Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control centre or doctor.

Inhalation: If person is not breathing give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control centre or doctor for treatment advice. Move victim from contaminated area to fresh air. Avoid inhalation of vapor or spray mist. Seek medical attention.

Advice to Physician: Conditions for individuals with chronic skin disease or known sensitivity to chlorophenoxy compounds can be aggravated by exposure.

Antidote: There is no specific antidote for poisoning with this product.

5. FIRE FIGHTING MEASURES

Flammability: Non-flammable

Extinguishing Agents: Dry chemical or CO₂ are recommended for fighting fires where MSMA is present

Firefighting: Use good industrial hygiene. Wear face shield or goggles, elbow length PVC gloves, cotton overalls buttoned to the neck and wrist, washable hat and half face respirator with dust cartridge or canister. Wash hands, arms and face thoroughly with soap and water after use and before eating, drinking or smoking.

Special Hazards: May produce gases including HCl, organo chlorides, nitrogen oxides and carbon monoxide when the product is exposed to fire.

6. ACCIDENTAL RELEASE MEASURES (SPILLAGE)

Personal Precautions: Wear protective clothing. Avoid breathing vapours or spray drift. If necessary, wear a self-contained breathing apparatus.

Environmental Precautions: Prevent spilled material from entering drains or watercourses. Contain spill and absorb with earth, sand, clay or another absorbent material.

Spills: Keep all bystanders away. Wear protective equipment. Reposition any leaking containers so as to minimize further leakage. Dam and absorb spill with an absorbent material (e.g. sand or soil). Shovel the absorbed spill into drums. Dispose of the absorbed material will depend upon the extent of the spill. Refer to Section 13 of this document for waste disposal.

7. HANDLING AND STORAGE REQUIREMENTS

Handling: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing them. Wash thoroughly and change into clean clothing.

Storage: Store in a safe manner in a cool, dry place away from children, domestic animals, food and feed products, seed and fertilizer. Store in original container only. Keep container tightly closed when not in use. Do not contaminate water supplies by handling and storage of this product.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Limits: The exposure limit for arsenic is 0.5 mg/m³ (8 hrs TWA).

Engineering Controls: Good local ventilation is recommended; mechanical ventilation may be used if exposure limits may be exceeded.

Personal Protective Equipment:

Clothing: Long-sleeved shirt, long pants, shoes plus socks, protective waterproof (impermeable) gloves. Employee must wear appropriate protective clothing and equipment to prevent prolonged skin contact with this product. Chemical-resistant apron must be worn when cleaning equipment, mixing or loading. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate.

Gloves: Chemical-resistant gloves category A (nitrile or butyl).

Eye Protection: Wear eye protection. During mixing or pouring operations or other activities in which eye contact with undiluted product is likely to occur, splash goggles should be worn. 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.

Respiratory: Use a respirator with an organic vapor-removing cartridge with a prefilter/canister approved for pesticides or a NIOSH approved respirator with an organic vapor cartridge.

Other Protection: Do not eat, drink or smoke while handling this product. Prevent contamination of food, feeds, drinking water and eating utensils. After using this product wash hands and face before eating. Take extreme care to avoid drift. Wash accurately (preferably a shower) after a work shift. Wash hands during breaks and at the end of the work with soap and water.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Light yellow solution liquid.

Odour: Slight odour.

Boiling Point: 104 °C

Vapour Pressure: 15 mmHg

Vapor Density: 0.6

pH: 6-7

%, Volatiles: Approx. 45 %

Specific Gravity: 1.49~1.51 g/ml

Solubility in Water: Dispersible

10. STABILITY AND REACTIVITY

Stability: Stable at normal temperatures and storage conditions.

Conditions to Avoid: None to specifically mention.

Incompatible Materials: Avoid contact with strong acids, strong bases and oxidizing agents. Avoid contact with metals such as zinc, aluminium, copper and tin.

Decomposition Products: May produce gases such as HCl, organo chlorides, nitrogen oxides and carbon monoxide when burning. MSMA, in the presence of many metals, can react with nascent hydrogen to form arsine gas.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀ (rat): 1 250 mg/kg

Acute Dermal LD₅₀ (rabbit): >2 500 mg/kg

Acute Inhalation LC₅₀ (rat, 4 hr): 2.2 mg/l air

Skin and Eye Irritation (rabbit): Mildly irritating to skin and eyes. Causes substantial but temporary eye injury.

Skin Sensitization (guinea pig): Skin sensitization may occur after repeated overexposure.

Chronic Effects: Repeated or prolonged overexposure may affect the liver, kidneys, blood, gastrointestinal and muscular systems.

Carcinogenicity: Arsenic and soluble arsenic compounds are classified as Class 1 carcinogens by NOHSC and IARC.

Mutagenicity: Animal studies did not detect teratogenic effects and mutagenic effects.

Reproductive Hazard: No data available.

12. ECOLOGICAL INFORMATION

Aquatic Toxicity Fish LC₅₀ (96 hr): >167 mg/l (trout); 51 mg/l (bluegill sunfish). Highly toxic to fish and aquatic organisms. Drift or runoff may adversely affect aquatic invertebrates.

Aquatic Toxicity Daphnia LC₅₀ (48 hr): 77.5 mg/l

Aquatic Toxicity Algae EC₅₀ (5 days): No data available.

Avian Toxicity LD₅₀ (oral): 425 g/kg (quail). Toxic to birds.

Bee Toxicity LD₅₀: No data available.

Biodegradability: Results of studies indicate the product is readily metabolized by micro-organisms. DT₅₀ is 55 days and 88 days for the primary metabolite, cacodylic acid.

Bio-accumulation: No data available.

Mobility: K_{oc} is 250 (sandy soil) to 2850 (silty loam).

13. DISPOSAL CONSIDERATION

Pesticide Disposal: Dispose of waste product as hazardous waste via a licensed disposal contractor to an approved landfill. Do not discharge into drains or sewers. Do not contaminate crops, grazing, rivers or dams with chemical or used container. Waste resulting from the use of this product that cannot be re-used or reprocessed should be disposed of in a landfill approved for pesticide disposal in accordance with applicable local procedures. Comply with any local legislation applying to waste disposal.

Package Product Wastes: Triple rinse (or equivalent) the containers. Offer the rinsed containers for recycling or reconditioning or puncture the containers and dispose of in a sanitary landfill or incinerator.

14. TRANSPORT INFORMATION

UN No.: 2994

Hazard Class: 6.1

Packing Group: III

Proper Shipping Name: Arsenical Pesticides; Liquid; Toxic (contains MSMA).

15. REGULATORY INFORMATION

Risk Phrases: R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.

R36/38- Irritating to eyes and skin.

R40- Limited evidence of a carcinogenic effect.

R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases: S2- Keep out of the reach of children.

S13- Keep away from food, drink and animal feeding stuffs.

S20/21- When using, do not eat, drink or smoke.

S24/25- Avoid contact with the skin and eyes.

S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.

National Legislation: This product is registered under Act 36 of 1947 of the Republic of South Africa. It is a violation of South African law to use this product in any manner inconsistent with its approved labelling. Read and follow all label directions.

16. OTHER INFORMATION

Note: Read and understand all the information on the product label before using the product.

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 and use of the product. It is not applicable to unusual or non-standard uses of the product, nor 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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