MATERIAL SAFETY DATA SHEET

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Chemical Product
WEED-HOE
EPA Reg. No. 61483-15-17545
Common Name: Liquid herbicide.
Chemical Description: Monosodium Acid Methanearsonate (MSMA) solution.
TSCA/CAS No.: The primary CAS number is 2163-80-6

Manufactured For
Monterey AgResources
P. O. Box 35000
Fresno, CA  93745-5000

Emergency Phone Numbers
Emergency Telephone: DAYS: (559) 499-2100  EVES.: (559) 431-7390
CHEMTREC (24-Hour Emergency Number): (800) 424-9300
EPA National Response Center: (800) 424-8802

SECTION 2. HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>CHEMICAL</th>
<th>CAS NO.</th>
<th>%</th>
<th>TLV OR PEL</th>
<th>RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosodium acid methanearsonate</td>
<td>2163-80-6</td>
<td>48.3</td>
<td>0.01 mg/m^3 (TWA)</td>
<td>*N.P.</td>
</tr>
<tr>
<td>(Total arsenic, as elemental, 22.3% all in water soluble form.)</td>
<td></td>
<td></td>
<td>ACGIH TLV (elemental and inorganic As)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>0.5 mg/m^3 (TWA)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>OSHA PEL (elemental and inorganic As)</td>
<td></td>
</tr>
</tbody>
</table>

* N.P. - Not pertinent.

SECTION 3. EMERGENCY/HAZARDS OVERVIEW

Light yellow liquid with no odor. Harmful if swallowed or absorbed through the skin. Noxious fumes may be emitted under fire conditions. Not D.O.T. regulated.

HEALTH: 1  REACTIVITY: 0  FLAMMABILITY: 0  ENVIRONMENT: 1
(0=Insignificant  1=Slight  2=Moderate  3=High  4=Extreme)

SECTION 4. FIRST AID

Eyes: Check for and remove contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes. Hold the eyelids apart to ensure flushing of the entire eye surface. Seek medical attention.

Skin: Wash with plenty of soap and water. Get medical attention if irritation persists.

Ingestion: Provided the patient is conscious, give 1 or 2 glasses of water to drink. Induce vomiting by touching back of throat with finger. Keep airway clear. Never give anything by mouth to an unconscious person. Obtain medical attention.

Note to Physician: If ingested, gastric lavage may be indicated. Chelation Therapy with BAL or D-penicillamine has been recommended in the literature for symptomatic arsenic poisoning. Persons allergic to penicillin may suffer reaction to D-penicillamine and, therefore, should be treated with BAL only.

Inhalation: Remove victim to fresh air. Until adequate ventilation or other control measures are restored, employ proper respiratory protection. If symptoms develop, seek medical attention.
SECTION 5. FIRE AND EXPLOSION HAZARDS

Flash Point: Nonflammable.
Test Method: Not pertinent.
LEL Flammable Limits: Not pertinent.
UEL Flammable Limits: Not pertinent.
Autoignition Temperature: Not pertinent.
Flammability Classification: Noncombustible.
Known Hazardous Products of Combustion: None known.
Properties that Initiate/Contribute to Intensity of Fire: None known.
Potential For Dust Explosion: None.
Reactions that Release Flammable Gases or Vapors: None known.
Potential For Release of Flammable Vapors: None.

Unusual Fire & Explosion Hazards: Noxious fumes may be emitted under fire conditions.
Extinguishing Media: Dry chemical or carbon dioxide. Avoid use of water or foam to prevent spread of contamination.
Special Firefighting Procedures: Stay upwind of smoke. Wear positive pressure, self-contained breathing apparatus and goggles. Contain any liquid runoff.

SECTION 6. SPILLS AND LEAKS

Containment: Prevent product spillage from entering drinking water supplies or streams.
Clean Up: Collect liquid or absorb onto absorbent material and package for disposal according to local, state, and federal regulations.
Evacuation: Not necessary but restrict entry.

SECTION 7. STORAGE AND HANDLING

Storage: Store in plastic or stainless steel container in a cool, well-ventilated, dry place at temperatures above 40°F. Do not store in contact with aluminum, copper, tin, zinc or galvanized metals. Do not contaminate water, food, feeds, seeds, fertilizers, insecticides or fungicides. Do not stack pallets more than two (2) high.
Transfer Equipment: Transfer product using chemical-resistant plastic or stainless steel tanks, pumps, valves, etc.
Work/Hygienic Practices: Harmful if swallowed or absorbed through the skin. Avoid contact with eyes, skin, or clothing. Avoid breathing vapors or spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Keep children and domestic animals off treated areas until spray has dried or material has been washed into the soil.

SECTION 8. PERSONAL PROTECTIVE EQUIPMENT

Eyes: Wear protective eyewear.
Skin: Wear long-sleeved shirt and long pants, waterproof gloves, shoes plus socks, and chemical-resistant apron when cleaning equipment, mixing or loading.
Respiratory: See label for required EPA required respirators.
Ventilation: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.
Other: Eyewash station and safety shower in the work area.
SECTION 9. PHYSICAL AND CHEMICAL DATA

Appearance: Light yellow liquid.
Odor: None.
pH: 5.7 to 6.7
Vapor Pressure: <7.5 x 10^{-8} Torr @ 25°C (For MAA)
Vapor Density (Air=1): Not determined.
Boiling Point: 108°C +/- 2°C
Freezing Point: -32°C. Do not allow product to freeze.
Water Solubility: Completely soluble.
Density: 12.6 lbs./gal. @ 20°C
Evaporation Rate (butyl acetate = 1): Not determined.
Viscosity: Not available.
% Volatile: 60% (v/v).
Octanol/Water Partition Coefficient: Not available.
Saturated Vapor Concentration: Not available.

SECTION 10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions.
Incompatibility / Conditions To Avoid: Contact with acids, nascent hydrogen and metals such as zinc, aluminum, copper and tin.
Hazardous Decomposition Products: Arsenic, in the presence of acids and metals such as zinc, aluminum, copper and tin can combine with nascent hydrogen to form arsine gas, which is a highly poisonous, colorless, non-irritating gas with a mild garlic odor.
Hazardous Polymerization: Will not occur.

SECTION 11. POTENTIAL HEALTH EFFECTS

Acute Effects:
Eyes: Although MSMA is non-irritating to the cornea, mild conjunctival irritation may persist for several days in unwashed eyes. Washing eyes immediately following exposure should prevent eye irritation.
Skin: Mild irritant, especially from repeated and/or prolonged exposure. May cause redness. Not readily absorbed through intact skin. LD_{50}: 4200 mg/kg (rabbit).
Ingestion: Slightly toxic. Probable lethal dose in man is between 1 ounce and 1 pint of liquid. Acute oral LD_{50} Rat = 1580 mg/kg.
Inhalation: Prolonged exposure might induce mild irritation of the respiratory tract, but recovery following exposure should be rapid. LC_{50} (4 Hour) Rat = >20 mg/L.
Overexposure Effects: Acute overexposure may result in mild irritation to tissue. Symptoms of arsenic poisoning are headache, dizziness, stupor, vomiting, diarrhea, convulsions, paralysis or death. Degree of irritation may increase with chronic exposure. Poisoning effects can be salty taste in mouth, burning throat, and stomach and intestinal pain.

SECTION 12. ECOLOGICAL INFORMATION

Algal/Lemna Growth Inhibition: Acute toxicity; slight.
Toxicity to Fish and Invertebrates: Acute toxicity; slight.
Toxicity to Plants: Acutely toxic.
Toxicity in Birds: Acute toxicity; slight.
SECTION 13. DISPOSAL

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Do not contaminate waterways by cleaning of equipment or by disposal of wastes.

CONTAINER DISPOSAL: Empty container retains product residue. Triple rinse (or equivalent) empty container, return rinse water to dilution mixture, and dispose of dilution mixture as hazardous waste if it cannot be disposed of by use according to label instructions. Do not reuse empty container. Offer it for recycling or reconditioning, or puncture and dispose of in properly permitted landfill.

Also, chemical additions or other alterations of this product may invalidate any disposal information in this MSDS. Therefore, consult local waste regulators for proper disposal.

SECTION 14. TRANSPORTATION

OTHER SHIPPING INFORMATION: Compounds, Tree or Weed Killing (Herbicide), Liquid.
NMFC Item 50320, LTL Class 60

SECTION 15. REGULATORY INFORMATION

CERCLA: None.
SARA TITLE III, Section 313 Toxic Chemicals: Arsenic compounds (22.3%).
PROPOSITION 65: None.

SECTION 16. OTHER

While the information contained herein is based on data considered accurate and was compiled to comply with the Federal Hazard Communication Standard and the California Hazardous Substances Information and Training Act, it is provided for guidance only. Monterey AgResources does not guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user’s obligation to evaluate and use this product safely and to comply with all applicable laws and regulations; in so doing, user assumes all risk in use of the material. The information contained herein is not to be taken as a warranty or representation for which Monterey AgResources assumes legal responsibility.