

**MSMA**

Helena Chemical Company  
 PH: 1-901-761-0050  
**CHEMTREC:** 1-800-424-9300  
**Effective Date:** 01-23-00  
**Product:** MSMA

**I. IDENTIFICATION**

**Chemical Name:** MONOSODIUM ACID METHANE-ARSONATE  
**Chemical Family:** ORGANIC ARSENICALS  
**Formula:** C-H4-AS-03 .NA  
**Synonyms:** MSMA LIQUID  
**CAS Number:** 2163-80-6  
**EPA Number:** 5905-67

**II. PHYSICAL DATA**

**Boiling Point:** >100 DEGREES C.  
**Freezing Point:** <32 DEGREES F.  
**Spec Gravity:** 1.552 GMS/CC  
**Vapor Pressure:** NOT AVAILABLE  
**Vapor Density:** NOT AVAILABLE  
**Solubility:** 100%  
**Volatiles:** 0%  
**Evaporation:** NOT AVAILABLE  
**Melting Point:** NOT AVAILABLE  
**Appearance:** GREENISH/YELLOW LIQUID, LOW ODOR.

**III. INGREDIENTS**

Material	CAS Number	Percent	TLV	Hazard
MONOSODIUM ACID METHANEARSONATE (MSMA) (TOTAL ARSENIC (AS ELEMENTAL), ALL IN WATER SOLUBLE FORM - 23.41%)		51.00	0.5 MG/M3	MODERATELY TOXIC
INERT INGREDIENTS		49.00	NOT APPLICABLE	NONHAZARDOUS

**IV. FIRE AND EXPLOSION HAZARD**

**Flash Point:** NON-COMBUSTIBLE  
**Autoignition Temp:** NOT APPLICABLE  
**Flammable Limit:** NOT APPLICABLE  
**Extinguishing Media:** NON-COMBUSTIBLE LIQUID. USE EXTINGUISHING MEDIA FOR UNDERLYING CAUSE OF FIRE.  
**Special Fire Fight Proc:** A SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE EQUIPMENT SHOULD BE USED TO FIGHT FIRES IN ENCLOSED AREAS. CONDITIONS.

**V. HEALTH HAZARD**

**Carcinogen Information:** NONE CURRENTLY KNOWN.  
**ACUTE EFFECTS OF OVER EXPOSURE**  
**Swallowing:** MODERATELY TOXIC - ORAL LD50 (RAT) 700 MG/KG.  
**Skin Absorption:** PRACTICALLY NON-TOXIC, MATERIAL NOT READILY ABSORBED THROUGH INTACT SKIN.  
**Inhalation:** MILD IRRITATION TO RESPIRATORY TRACT.  
**Skin contact:** MILD SKIN IRRITATION - SKIN (RABBIT) 54 MG. OPEN.  
**Eye Contact:** MILD EYE IRRITATION - EYE (RABBIT) 34 MG.  
**Chronic Effects:** SYMPTOMS OF POISONING ARE HEADACHE, DIZZINESS, STUPOR, VOMITING, DIARRHEA AND CONVULSIONS.  
**Other Hazard:** NONE CURRENTLY KNOWN.

**EMERGENCY AND FIRST AID PROCEDURES**

**Swallowing:** INDUCE VOMITING IF CONSCIOUS. GIVE PLENTY OF WATER. TREATMENT BY PHYSICIAN SHOULD BE DIRECTED TOWARD THE ELIMINATION OF ARSENIC. ADMINISTER BAL AND TREAT FOR SHOCK.  
**Skin:** WASH SKIN THOROUGHLY WITH SOAP AND WATER. IF IRRITATION DEVELOPS, CONSULT A PHYSICIAN.

**Inhalation:** IF SIGNS AND SYMPTOMS ARE NOTED, MOVE TO FRESH AIR. IF IRRITATION DEVELOPS, CONSULT A PHYSICIAN.

**Eyes:** FLUSH EYES WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. IF IRRITATION DEVELOPS, CONSULT A PHYSICIAN.

**Notes to Physician:** THIS PRODUCT CONTAINS MONOSODIUM METHANE ARSONATE (MSMA). THIS COMPOUND BINDS TO SULFHYDRYL GROUPS IN TISSUES. BAL HAS BEEN RECOMMENDED IN THE LITERATURE AS AN ANTIDOTE FOR POISONING, HOWEVER, THIS USE IS HIGHLY CONTROVERSIAL. IF INGESTED, GASTRIC LAVAGE MAY BE REQUIRED.

**VI. REACTIVITY**

**Stability:** Stable  
**Incompatibility material:** STRONG ACIDS, ZINC, ALUMINUM, COPPER, AND TIN.  
**Hazardous Combustion:** BURNING MAY RESULT IN THE FORMATION OF ARSENIC COMPOUNDS.

**VII. SPILL OR LEAK PROCEDURES**

**Spill or Leak Proc:** DIKE AND ABSORB SPILL WITH AN ABSORBENT, SUCH AS CLAY, SAND, OR SAWDUST. TRANSFER TO SUITABLE CONTAINERS FOR PROPER DISPOSAL. FLUSH SPILL AREA WITH WATER, ABSORB AND PLACE IN SAME CONTAINERS WITH OTHER MATERIAL.  
**Waste Disposal Method:** THIS MATERIAL MUST BE DISPOSED OF ACCORDING TO FEDERAL, STATE, OR LOCAL PROCEDURES UNDER THE RESOURCE CONSERVATION AND RECOVERY ACT.

**VIII. SPECIAL PROTECTION INFORMATION**

**Respiration:** NONE NORMALLY REQUIRED. UNDER MISTY CONDITIONS, USE NIOSH/MSHA APPROVED RESPIRATORY PROTECTION.  
**Ventilation:** LOCAL EXHAUST SUFFICIENT.  
**Gloves:** IMPERVIOUS  
**Eyes:** SPLASH PROOF GOGGLES.  
**Other:** EYE WASH STATION, IMPERVIOUS APRON AND FOOTWEAR.

**IX. SPECIAL PRECAUTIONS**

**Special precaution:** KEEP OUT OF REACH OF CHILDREN. DO NOT STORE WITH FOOD, FEED, OR OTHER MATERIAL TO BE USED OR CONSUMED BY HUMANS OR ANIMALS. DO NOT CONTAMINATE WATER SUPPLIES, LAKES, STREAMS, OR PONDS.  
**Other precaution:**  
 A) RCRA HAZARDOUS WASTE NUMBER: D004, ELEMENTAL ARSENIC  
 B) SARA TITLE III, SECTION 313: 23.41%, ELEMENTAL ARSENIC  
 C) SARA THRESHOLD PLANNING QUANTITY: NOT LISTED  
 D) CERCLA REPORTABLE QUANTITY: 100 LBS. (AS WASTE)  
 E) 49 CFR 172.101, APPENDIX A: NOT LISTED

**X. SHIPPING INFORMATION**

**Shipping name:** NOT REGULATED BY DOT, IATA (AIR), OR IMDG (WATER).  
**Hazard Class:** NONE  
**Identification No:** NONE  
**Labels Required:** NONE REQUIRED  
**Placarding:** NONE REQUIRED  
**Freight Class:** COMPOUND, WEED KILLING, LIQUID, NOIBN (NMFC ITEM 50320, CLASS 60)

Chemical Name	Equivalent R.Q.
NOT APPLICABLE	NOT APPLICABLE

**XI. GENERAL PRODUCT INFORMATION**

**National Fire Protection Association Rating:** (Rating level: 4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Minimum)  
**Health:** 2  
**Fire:** 0  
**Reactivity:** 0  
**S.A.R.A. Title III Hazard Classification:** (Yes/No)

**Immediate (Acute) Health:** Y  
**Delayed (Chronic) Health:** N  
**Sudden Release of pressure:** N  
**Fire:** N  
**Reactive:** N

Mail inquiries to: 225 Schilling Blvd., Suite 300 Collierville, TN 38017  
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