MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY ADDRESS: EMERGENCY TELEPHONE NUMBERS:

ALBAUGH, INC. (800) 424-9300 (CHEMTREC, transportation and spills)

Ankeny, IA 50021

PRODUCT NAME : WEED-HOE 108

CHEMICAL NAME : Monosodium Acid Methanearsenate (MSMA)

CHEMICAL FAMILY : Arsenical Herbicide PRODUCT CODE : EPA Reg. No. 42750-29

SECTION 2 - COMPOSITION, INFORMATION OF INGREDIENTS

COMPONENT	PERCENTAGE	CAS NUMBER	OSHA PEL	ACIGH TLV
Monosodium Acid Methanearsenate (MSMA)	47.8 %	2163-80-6	0.2 mg/M ³	0.5 mg/M ³
Inert Ingredients	52.2 %	n/a	n/a	n/a

SECTION 3 - HAZARDS IDENTIFICATION SUMMARY

(As defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200)

HEALTH HAZARDS: Moderate eye irritant.

PHYSICAL HAZARDS: May react with metals such as aluminum or galvanized steel.

ENVIRONMENTAL HAZARDS: Moderately toxic to fish and aquatic pants.

SECTION 4 - FIRST AID MEASURES

IF IN EYES: 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 eye. Call a poison control center or doctor for treatment advice.

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person. Take off contaminated clothing.

IF ON SKIN: Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT (method): Will not flash. FLAMMABLE LIMITS: Not Established

FIRE AND EXPLOSION HAZARD: May decompose in fire due releasing irritating or toxic gases.

EXTINGUISHING MEDIA: Use water spray, foam or dry chemical.

FIGHTING INSTRUCTIONS: Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Foam or dry chemical extinguishing systems recommended to prevent environmental damage due to water run off.

FIREFIGHTING EQUIPMENT: Self-contained breathing apparatus with full facepiece. Full firefighting turn-out gear (Bunker gear).

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide, nitrogen oxides, phosphorous oxides. SECTION 6 - ACCIDENTAL RELEASE MEASURES

Clean up spills immediately, observing precautions in Section 8 of this document. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

SMALL SPILL: Absorb small spills on sand, vermiculite or other inert absorbent. Place contaminated material in appropriate container for disposal.

LARGE SPILL: Dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify, and scrape up for disposal. After removal, scrub the area with detergent and water.

Wear appropriate personal protection equipment. (See Section 8 Exposure Controls, Personal Protection.)

SECTION 7 - HANDLING AND STORAGE

KEEP OUT OF REACH OF CHILDREN!

HANDLING: Use only in a well-ventilated area. Wear appropriate safety equipment when handling.

STORAGE: Store in original container with lid tightly closed. Keep away from food, feed and drinking water. Store above 35 F. If product freezes, warm to 80-90 F and redissolve by shaking container before using product.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS (8 hour TWA, ppm): Refer to Section 3.

ENGINEERING CONTROLS: Proper ventilation is required when handling or using this product to keep exposure to airborne contaminants below the exposure limit. Local mechanical exhaust ventilation may be required. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

PERSONAL PROTECTIVE EQUIPMENT:

EYE PROTECTION – Safety glasses with side shields, goggles or face shield.

CLOTHING - Long-sleeved shirt and long pants, Shoes plus socks. Chemical resistant apron when mixing or loading.

GLOVES - Chemical resistant gloves made of any waterproof material

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS: 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.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION: Clear light yellow liquid.

ODOR: None

SPECIFIC GRAVITY: 1.43 – 1.52 g/ml (12.00 – 12.70 lb/gl)*

pH: 5.5 - 6.5

VAPOR PRESSURE: Unknown VAPOR DENSITY: Unknown WATER SOLUBILITY: Miscible

^{*}Listed density is an approximate value and does not necessarily represent that of a specific batch.

SECTION 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable, however may decompose if heated.

CONDITIONS TO AVOID: Avoid temperatures above (115°F, 46°C) and below 25°F (-5°C).

INCOMPATIBILITY WITH OTHER MATERIALS: Strong oxidizers, reducing agents, aluminum and galvanized steel.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon oxides. Reducing agents may release arsine gas.

HAZARDOUS POLYMERIZATION: Product will not undergo polymerization.

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

 $\begin{array}{lll} \text{Oral LD}_{50} \ (\text{rat}) & -> 1,000 \ \text{mg/kg} \\ \text{Dermal LD}_{50} \ (\text{rat}) & -> 2,000 \ \text{mg/Kg} \\ \text{Inhalation LC}_{50} \ (\text{rat}) & -> 2.0 \ \text{mg/L} \\ \text{Eye Irritation (rabbit)} & -\text{Moderate} \\ \text{Skin Irritation (rabbit)} & -\text{Mild} \end{array}$

Sensitization (guinea pig) - Non-sensitizer

CARCINOGEN STATUS:

OSHA - Not listed NTP - Not listed IARC - Not listed

MUTAGENIC DATA: No evidence of mutagenic effects during in vivo or in vitro studies.

SECTION 12 - ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

FISH TOXICITY:

96 hour LC₅₀, Rainbow trout – 165 mg/L 96 hour LC₅₀, Bluegill – 50 mg/L

AVIAN TOXICITY:

Oral LD_{50} , Bobwhite quail – 425 mg/Kg Oral LD_{50} , Mallard duck – Unknown

BEE: 68 ug/bee

SECTION 13 - DISPOSAL CONSIDERATIONS

Do not contaminate water, food, or feed by storage or disposal.

WASTE: Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures. Emptied container retains vapor and product residue.

CONTAINER: Do not reuse container. Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning.

If burned, stay out of smoke.

PESTICIDE DISPOSAL: Observe all labeled safeguards until container is cleaned, reconditioned, or destroyed.

SECTION 14 - TRANSPORT INFORMATION

DOT SHIPPING DESCRIPTION: Not regulated by DOT

DOT HAZARD CLASS:
UN NUMBER:
N/A
DOT PACKING GROUP:
N/A
DOT PRIMARY/SECONDARY LABEL:
N/A
DOT PRIMARY/SECONDARY PLACARD:
N/A
DOT EMERGENCY RESPONSE GUIDE #:
N/A

SECTION 15 - REGULATORY INFORMATION

CERCLA REPORTABLE QUANTITY: Not listed

SARA TITLE III STATUS:

311/312 Hazard Categories – Immediate Health 313 Toxic Chemicals – Elemental arsenic

CALIFORNIA PROP 65: Inorganic arsenic compounds

SECTION 16 - OTHER INFORMATION

HMIS HAZARD RATINGS	HEALTH				2	
	FLAMMABILITY		0			
	PHYSICAL HAZARD		1			
	4=Severe	3=Serious	2=M	oderate	1=Sliaht	0=Minimal

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REVISED DATE: January, 2008

REFERENCE: Revised Section 16 HMIS Table