



**FreshAWL® Z-AMP™  
MATERIAL SAFETY  
DATA SHEET**

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11/19/2012

PRODUCT INFORMATION: H M I S  
HEALTH: 1  
FLAMMABILITY: 0  
REACTIVITY: 1  
PERSONAL PROTECTION: C

**II. PRODUCT IDENTIFICATION**

Product Name: FreshAWL® Z-AMP™  
Synonyms: Struvite Remover  
Chemical Family: Organic Acid  
CAS NO: None

**III. HAZARDOUS COMPONENTS**

OSHA: CAS, ACGIH  
PEL # TLV  
COMPONENT: Food Grade Organic Acids N/A, not applicable

**IV. PHYSICAL PROPERTIES**

FREEZE POINT:	< 13°F	SPECIFIC GRAVITY: 1.213 kg./L 10.120 lbs./gal.
BOILING POINT (°F):	212°F	PERCENT VOLATILE (BY WEIGHT): 50%
VAPOR PRESSURE (mm Hg):	< 2 mm Hg	EVAPORATION RATE: As Water
VAPOR DENSITY (AIR=1):	not applicable	pH: 2.5-3
SOLUBILITY IN WATER:	SOLUBLE	
APPEARANCE AND ODOR:	Clear solution with slight yellowing	

**V. FIRE & EXPLOSION HAZARD DATA**

FLASH POINT (°F) : >210°F

FLAMMABLE LIMITS: LEL N/A UEL N/A

EXTINGUISHING MEDIA: WATER	Water	X	Alcohol Foam	X	CO2	X	Dry Chemical	X
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SPECIAL FIREFIGHTING PROCEDURES: USE STANDARD FIREFIGHTING TECHNIQUES TO FIGHT FIRES INVOLVING THIS MATERIAL.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Product is Acidic and will react with bases.

**VI. REACTIVE DATA**

STABILITY: Stable

CONDITIONS TO AVOID: Strong Bases

HAZARDOUS POLYMERIZATION: Will Not Occur

CONDITIONS TO AVOID: None

INCOMPATIBILITY: Strong Bases

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon Dioxide

**VII. PERSONAL PROTECTIVE EQUIPMENT INFORMATION**

RESPIRATORY PROTECTION: Use respirator if spraying concentrates; none needed for normal use.

PROTECTIVE GLOVES: Butyl, Latex or Rubber to protect from exposure.

EYE PROTECTION: When using this product for cleaning, safety eyewear is recommended. When transferring this product from container to container wearing goggles or face shield is recommended to avoid possible splash.

VENTILATION: None Required.



OTHER PROTECTIVE EQUIPMENT: None Required.

VIII. HEALTH HAZARD DATA

Aquatic Toxicity:

LC-50/96-rainbow trout 5,000 ppm

Component Animal Toxicology

Oral LD50 value mg/kg: None

Dermal LD50 value mg/kg: None

Inhalation LCLo: None

Component Fetal Effects: Tests with lab animals have **not** resulted in birth defects, testicular damage or sperm damage from this product.

Skin Irritation: This material may be slightly irritating.

Eye Irritation: This material may be slightly irritating, prolonged exposure may be damaging.

Reproductive and Developmental Toxicity: See "Component fetal effects" above in this section.

Mutagenicity: None

Carcinogenicity: None, including reporting by IARC< OSHA< NTP or EPA.

LISTED CARCINOGEN: NONE: X OSHA: NTP: 1ARC: OTHER:

IX. EMERGENCY AND FIRST AID PROCEDURES

SKIN: Flush with water-prolonged contact can cause irritation or allergic dermatitis.

EYES: Flush with water for at least 15 minutes or until irritation is relieved.

INHALATION: Immediately remove to fresh air. Keep person calm. If not breathing, give artificial respiration. If not breathing give oxygen.

INGESTION: Seek medical attention immediately. If person is conscious, give them water to dilute stomach content.

CARCINOGENICITY: This product is not known or reported to be carcinogenic by any reference source including, IARC, OSHA, NTP or EPA.

CHRONIC ORGAN TOXICITY: None, including reporting by IARC< OSHA< NTP or EPA.

Supplemental Health Information: None, including reporting by IARC< OSHA< NTP or EPA.

NOTE TO PHYSICIAN: None.

X. SPILL AND DISPOSAL INFORMATION

STEPS TO BE TAKEN IN THE EVENT OF A SPILL:

Ventilate area.

Use protective clothing. Liquids and sprays are corrosive and irritating. Take appropriate precautions against exposure.

Waste disposal information:

Small spills can be washed down drains to sanitary sewer. Large spills can be neutralized with soda ash and washed to sanitary sewer or absorbed and disposed of as trash. Comply with federal, state, and local regulations.

RCRA HAZARDOUS WASTE: YES NO X RQ: lbs. UN/NA NO. NOT LISTED

SHIPPING NAME: Cleaning compound not DOT regulated.

HAZARD CLASSIFICATION: NONE

XI. ADDITIONAL INFORMATION

This Material Safety Data Sheet (MSDS) has been prepared in compliance with the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200 and ANSI Z400 1-2004. This information should be provided to all who will use, handle, store, transport, or otherwise be exposed to this product. FreshAWL believes this information to be reliable and up to date as of this publication date, but make no warranty that it is. If this MSDS is more than three years old you should contact the supplier to make sure the information is still current.