#### MATERIAL SAFETY DATA SHEET

Date Printed: 07/14/2009 Date Updated: 01/31/2006

Version 1.3

Section 1 - Product and Company Information

Product Name (S)-(+)-(1-AMINOETHYL)PHOSPHONIC ACID,

9 9%

Product Number 367559
Brand ALDRICH

Company Sigma-Aldrich

Address 3050 Spruce Street

SAINT LOUIS MO 63103 US

Technical Phone: 800-325-5832 Fax: 800-325-5052 Emergency Phone: 314-776-6555

Section 2 - Composition/Information on Ingredient

Substance Name CAS # SARA 313

(S)-(+)-(1-AMINOETHYL)PHOSPHONIC 66068-76-6 No

ACID, 99%

Formula C2H8NO3P

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Irritant.

Irritating to eyes, respiratory system and skin.

HMIS RATING

HEALTH: 2

FLAMMABILITY: 0 REACTIVITY: 0

NFPA RATING

HEALTH: 2

FLAMMABILITY: 0 REACTIVITY: 0

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

INHALATION EXPOSURE

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

DERMAL EXPOSURE

In case of contact, immediately wash skin with soap and copious amounts of water.

### EYE EXPOSURE

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

# Section 5 - Fire Fighting Measures

## FLASH POINT

N/A

#### AUTOIGNITION TEMP

N/A

### FLAMMABILITY

N/A

#### EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

### FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Emits toxic fumes under fire conditions.

### EXPOSURE HAZARD(S)

Material: Irritant.

## Section 6 - Accidental Release Measures

# PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

### METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

# Section 7 - Handling and Storage

#### HANDLING

User Exposure: Do not breathe dust. Avoid contact with eyes, skin, and clothing.

## STORAGE

Suitable: Keep tightly closed. Store in a cool dry place.

## Section 8 - Exposure Controls / PPE

### ENGINEERING CONTROLS

Safety shower and eye bath. Mechanical exhaust required.

# PERSONAL PROTECTIVE EQUIPMENT

Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143)) respirator.

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles.

#### GENERAL HYGIENE MEASURES

Wash contaminated clothing before reuse. Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

Appearance Color: White Form: Fine crystals Property Value At Temperature or Pressure Molecular Weight 125.07 AMU N/ABP/BP Range N/A295 °C MP/MP Range Freezing Point N/AVapor Pressure N/A Vapor Density N/ASaturated Vapor Conc. N/A Bulk Density N/AOdor Threshold N/A Volatile% N/A VOC Content N/AWater Content N/ASolvent Content N/AEvaporation Rate N/AViscosity N/ASurface Tension N/A Partition Coefficient N/ADecomposition Temp. N/A Flash Point N/AExplosion Limits N/AFlammability N/AAutoignition Temp N/ARefractive Index N/AOptical Rotation Degree of Rotation: 50 g/l Solvent: H20 +5.8 - +4.8 (+/-0.5) Miscellaneous Data N/ASolubility N/A N/A = not available

# Section 10 - Stability and Reactivity

## STABILITY

Materials to Avoid: Strong oxidizing agents.

## HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Nitrogen oxides, Phosphorous oxides.

# Section 11 - Toxicological Information

## ROUTE OF EXPOSURE

Inhalation: Material is irritating to mucous membranes and upper respiratory tract.

Multiple Routes: Causes eye and skin irritation. May be harmful by inhalation, ingestion, or skin absorption.

# SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and

toxicological properties have not been thoroughly investigated.

# Section 12 - Ecological Information

No data available.

# Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION
Dissolve or mix the material with a combustible solvent and burn
in a chemical incinerator equipped with an afterburner and
scrubber. Observe all federal, state, and local environmental
regulations.

# Section 14 - Transport Information

#### DOT

Proper Shipping Name: None

Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

#### IATA

Non-Hazardous for Air Transport: Non-hazardous for air transport.

# Section 15 - Regulatory Information

## EU ADDITIONAL CLASSIFICATION

Symbol of Danger: Xi

Indication of Danger: Irritant.

R: 36/37/38

Risk Statements: Irritating to eyes, respiratory system and skin.

S: 26-37/39

Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves and eye/face protection.

# US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Irritant.

Risk Statements: Irritating to eyes, respiratory system and skin. Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves and eye/face protection.

# UNITED STATES REGULATORY INFORMATION

SARA LISTED: No

# CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No NDSL: No

# Section 16 - Other Information

## DISCLAIMER

For R&D use only. Not for drug, household or other uses.

## WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The

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