

# Safety Data Sheet

Issue Date: 26-Dec-2014

Revision Date: 28-Mar-2016

Version 2

## 1. IDENTIFICATION

### Product Identifier

**Product Name** AVAIL for Liquid Phosphate Fertilizers

### Other means of identification

**SDS #** FFN: 04001

**UN/ID No** UN1760

### Recommended use of the chemical and restrictions on use

**Recommended Use** Fertilizer.

### Details of the supplier of the safety data sheet

#### **Supplier Address**

Verdesian Life Sciences, U.S., LLC.  
1001 Winstead Drive, Suite 480  
Cary, NC 27513

### Emergency Telephone Number

**Company Phone Number** Business Phone: (800) 868-6446  
Fax Phone: (919) 535-3652  
**Emergency Telephone (24 hr)** INFOTRAC 1-352-323-3500 (International)  
1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

**Appearance** Tan to brown liquid                      **Physical State** Liquid                      **Odor** Characteristic

### Classification

Skin corrosion/irritation	Category 1 Sub-category C
Serious eye damage/eye irritation	Category 1

### Signal Word

**Danger**

### Hazard Statements

Causes severe skin burns and eye damage



### Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray  
Wash face, hands and any exposed skin thoroughly after handling  
Wear protective gloves/protective clothing/eye protection/face protection

**Precautionary Statements - Response**

Immediately call a poison center or doctor/physician

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Immediately call a poison center or doctor/physician

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

Wash contaminated clothing before reuse

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Immediately call a poison center or doctor/physician

IF SWALLOWED: rinse mouth. Do NOT induce vomiting

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical Family** Carboxylated polymer.

Chemical Name	CAS No	Weight-%
Maleic-itaconic copolymer, partial ammonium salt	701908-99-8	Proprietary

\*\*If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.\*\*

### 4. FIRST-AID MEASURES

**First Aid Measures**

<b>General Advice</b>	Provide this SDS to medical personnel for treatment.
<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
<b>Skin Contact</b>	Wash off immediately with plenty of water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation persists, call a physician.
<b>Inhalation</b>	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen & get medical attention immediately.
<b>Ingestion</b>	Do not induce vomiting. Rinse mouth. Call a physician immediately.

**Most important symptoms and effects**

**Symptoms** Causes severe skin burns and eye damage. Will cause gastrointestinal tract irritation.

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician** Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**

Water spray, dry chemical, carbon dioxide, foam.

**Unsuitable Extinguishing Media** Not determined.

**Specific Hazards Arising from the Chemical**

Toxic fumes may be given off when material is exposed to fire.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

- Personal Precautions** Use personal protective equipment as required.
- Environmental Precautions** See Section 12 for additional Ecological Information.

**Methods and material for containment and cleaning up**

- Methods for Containment** Prevent further leakage or spillage if safe to do so.
- Methods for Clean-Up** Keep in suitable, closed containers for disposal.

**7. HANDLING AND STORAGE****Precautions for safe handling**

- Advice on Safe Handling** Use personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Do not breathe vapors or spray mist. Wash face, hands, and any exposed skin thoroughly after handling.

**Conditions for safe storage, including any incompatibilities**

- Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up.
- Incompatible Materials** Strong oxidizing agents. Strong reducing agents. Materials incompatible with water. Materials incompatible with ammonium salts.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

- Exposure Guidelines** No exposure limits noted for ingredient(s). The following information is given as general guidance

**Appropriate engineering controls**

- Engineering Controls** Maintain eye wash fountain and quick-drench facilities in work area.

**Individual protection measures, such as personal protective equipment**

- Eye/Face Protection** Use chemical safety goggles / face shield.
- Skin and Body Protection** Chemical resistant protective gloves.
- Respiratory Protection** Ensure adequate ventilation, especially in confined areas.
- General Hygiene Considerations** Avoid contact with skin, eyes and clothing. After handling this product, wash hands before eating, drinking, or smoking. If contact occurs, remove contaminated clothing. If needed, take first aid action shown on section 4 of this SDS. Launder contaminated clothing before reuse.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical State</b>	Liquid	<b>Odor</b>	Characteristic
<b>Appearance</b>	Tan to brown liquid	<b>Odor Threshold</b>	Not determined
<b>Color</b>	Tan to brown		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	~2.0	
<b>Melting Point/Freezing Point</b>	-7.22 °C / 19 °F	
<b>Boiling Point/Boiling Range</b>	Not determined	
<b>Flash Point</b>	None	
<b>Evaporation Rate</b>	Not determined	
<b>Flammability (Solid, Gas)</b>	n/a-liquid	
<b>Upper Flammability Limits</b>	Not determined	
<b>Lower Flammability Limit</b>	Not determined	
<b>Vapor Pressure</b>	Not determined	
<b>Vapor Density</b>	Not determined	
<b>Specific Gravity</b>	1.1-1.3	
<b>Water Solubility</b>	Not determined	
<b>Solubility in other solvents</b>	Not determined	
<b>Partition Coefficient</b>	Not determined	
<b>Auto-ignition Temperature</b>	Not determined	
<b>Decomposition Temperature</b>	Not determined	
<b>Kinematic Viscosity</b>	Not determined	
<b>Dynamic Viscosity</b>	<50 cP	
<b>Explosive Properties</b>	Not determined	
<b>Oxidizing Properties</b>	Not determined	

## 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions.

### Chemical Stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

Exposure to excessively high pH may lead to ammonia gas evolution. Can react with metals to give off hydrogen, heat and/or steam. Can react with bases and metal oxides with high evolution of heat and/or steam. Can react with carbonates to give off carbon dioxide, heat and/or steam.

### Conditions to Avoid

Incompatible Materials.

### Incompatible Materials

Strong oxidizing agents. Strong reducing agents. Materials incompatible with water. Materials incompatible with ammonium salts.

### Hazardous Decomposition Products

Carbon oxides. Nitrogen oxides (NOx).

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

<b>Product Information</b>	To the best of our knowledge, the chemical, physical and toxicological properties of this material have not been thoroughly investigated
<b>Eye Contact</b>	Causes severe eye damage.

---

<b>Skin Contact</b>	Causes severe skin burns.
<b>Inhalation</b>	May cause irritation to the mucous membranes and upper respiratory tract.
<b>Ingestion</b>	Can cause gastrointestinal disturbance.
<b><u>Component Information</u></b>	Not available

**Information on physical, chemical and toxicological effects**

**Symptoms** Please see section 4 of this SDS for symptoms.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Carcinogenicity** Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

**Numerical measures of toxicity**

Not determined

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

**Component Information** Not available

**Persistence/Degradability**

Not determined.

**Bioaccumulation**

Not determined.

**Mobility**

Not determined

**Other Adverse Effects**

Not determined

**13. DISPOSAL CONSIDERATIONS****Waste Treatment Methods**

**Disposal of Wastes** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging** Disposal should be in accordance with applicable regional, national and local laws and regulations.

## 14. TRANSPORT INFORMATION

**Note** Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

### DOT

**UN/ID No** UN1760  
**Proper Shipping Name** Corrosive Liquid, n.o.s (Maleic-itaconic copolymer, partial ammonium salt)  
**Hazard Class** 8  
**Packing Group** III

### IATA

**UN/ID No** UN1760  
**Proper Shipping Name** Corrosive Liquid, n.o.s (Maleic-itaconic copolymer, partial ammonium salt)  
**Hazard Class** 8  
**Packing Group** III

### IMDG

**UN/ID No** UN1760  
**Proper Shipping Name** Corrosive Liquid, n.o.s (Maleic-itaconic copolymer, partial ammonium salt)  
**Hazard Class** 8  
**Packing Group** III

## 15. REGULATORY INFORMATION

### International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Maleic-itaconic copolymer, partial ammonium salt	Present		X							

### Legend:

*TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*

*DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List*

*EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*

*ENCS - Japan Existing and New Chemical Substances*

*IECSC - China Inventory of Existing Chemical Substances*

*KECL - Korean Existing and Evaluated Chemical Substances*

*PICCS - Philippines Inventory of Chemicals and Chemical Substances*

*AICS - Australian Inventory of Chemical Substances*

### US Federal Regulations

#### CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

#### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**US State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

This product does not contain any substances regulated under applicable state right-to-know regulations

<b>16. OTHER INFORMATION</b>
------------------------------

**NFPA****Health Hazards**

Not determined

**Flammability**

Not determined

**Instability**

Not determined

**Special Hazards**

Not determined

**HMIS****Health Hazards**

2

**Flammability**

0

**Physical Hazards**

1

**Personal Protection**

B

**Issue Date:** 26-Dec-2014

**Revision Date:** 28-Mar-2016

**Revision Note:** New product

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**