

# SAFETY DATA SHEET



SDS No.:  
Date Created: April 28, 2016  
Supercedes: NA

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** ACE™  
**General Use:** Biotic Auxiliary Soil and Plant Substance  
**Product Description:** Light Amber Liquid

**MANUFACTURER**  
BioScientific, Inc.  
4405 S. Litchfield Road  
Avondale, Arizona 85323

**EMERGENCY TELEPHONE NUMBER:**  
(800)-424-9300 CHEMTREC USA & CANADA  
+1 (703) 527-3887 Int'l & Maritime

## 2. HAZARD IDENTIFICATION

Components having exposure limits established by recognized authorities

Component	EXPOSURE LIMITS 8 hrs TWA (ppm)			
	OSHA PEL	ACGIH TLV	NIOSH REL	AIHA WEEL
No components have established exposure limits.				

Contains naturally occurring beneficial bacterial organisms which have no known toxic properties.

## EMERGENCY OVERVIEW

### GHS CLASSIFICATION OF SUBSTANCE

Flammable Liquid	Not Applicable
Aspiration Toxicity	Not Applicable
Skin Irritation	No classification Under GHS
Eye Irritation	No classification Under GHS
Carcinogenicity	No classification Under GHS
Specific Organ Toxicity Repeated Exposure	No classification Under GHS
Specific Organ Toxicity Single Exposure	No Classification Under GHS
Reproductive Toxicity	No Classification Under GHS
Acute Toxicity	No Classification Under GHS
Germ Cell mutagenicity	No Classification Under GHS
Hazardous to the aquatic env.	No classification Under GHS

### GHS LABEL ELEMENTS

No pictogram

No Warning Statement

**Hazard Statements**

H320 - May cause eye irritation if splashed into the eyes

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## Precautionary Statements

### General:

P101 - If medical advice is needed, have product container or label at hand.

### Prevention:

P262 - Do not get in eyes, on skin, or on clothing.

### Response:

P332+P313 - If skin irritation occurs: Get medical advice/attention.

P338+351 - EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so.

P337+P313 - If eye irritation persists: Get medical advice/attention.

### Storage/Disposal:

P402+P404 - Store in a dry place. Store in a closed container at ambient temperature.

## UN GHS

According to the Globally Harmonized Standard for Classification and Labeling (GHS), this product is considered non-hazardous. Eye contact is a concern because of potential to irritate eyes.

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## 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>wt%</u>	<u>CAS Registry #</u>
<i>Bacillus licheniformis</i>	1.00E+05 CFU/cc	068038-66-4
<i>Bacillus subtilis</i>	1.00E+05 CFU/cc	068038-70-0
<i>Pseudomonas putida</i>	1.00E+05 CFU/cc	NA

CFU/cc - colony forming units per cubic centimeter of liquid

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## 4. FIRST AID MEASURES

### INHALATION:

Material is not sufficiently volatile to create an inhalation hazard unless it is aspirated as a mist in some manner. If inhalation exposure is suspected, remove person to fresh air and seek medical attention if the person shows any signs of distress and/or allergic response.

### EYE CONTACT:

Remove contact lens (if present). Rinse eyes immediately with plenty of clean water for at least 15 minutes. If necessary, gently hold the eyelid open during the flush. If eye irritation persists, seek medical attention.

### SKIN CONTACT:

Immediately wash skin with soap and plenty of water. Consult a physician if redness or irritation occurs.

### INGESTION:

Ingestion of small quantities is not expected to cause any adverse reactions. Consuming large quantities may cause digestive distress. If distress occurs, seek medical attention and provide SDS to attending medical personnel.

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## 5. FIRE FIGHTING MEASURES

**Flashpoint and Method:** Unknown

**Flammable Limits:** Unknown

**Autoignition Temperature:** Unknown

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**GENERAL HAZARD:**

Material is water based and not expected to be a significant fire hazard.

**FIRE FIGHTING INSTRUCTIONS:**

Water fog or fine spray; dry chemical fire extinguishers; carbon dioxide fire extinguishers; foam; alcohol resistant foams (ATC type).

**FIRE FIGHTING EQUIPMENT:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. For small outdoor fires, which may be easily extinguished with a portable fire extinguisher, use of protective equipment is generally unnecessary.

**FURTHER INFORMATION:**

During a fire, smoke may contain the original material in addition to combustion products which might be more irritating.

**HAZARDOUS COMBUSTION PRODUCTS:**

Carbon dioxide, carbon monoxide, sulfur oxides, aldehydes and miscellaneous organic gases.

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## 6. ACCIDENTAL RELEASE MEASURES

**LAND SPILL RESPONSE:**

Material is a consortia of beneficial organisms designed to be used in soils in close proximity to seeds and starter plants. Small spills will dissipate on their own. Larger spills can be diluted through mixing impacted soils with other soils to utilize the value of the beneficial organisms.

**WATER SPILL:**

Material is water based and will mix with the water. Small spill effects are negligible. Large spills may enhance the growth of aquatic plant material.

**RECOMMENDED DISPOSAL:**

The material is not hazardous according to U.S. EPA CFR 40. Dispose of in accordance with local and state regulatory agency requirements.

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## 7. HANDLING AND STORAGE

**STORAGE TEMPERATURE:** Ambient

**STORAGE PRESSURE:** Atmospheric

**GENERAL:**

Store in a dry/cool location. Storage between 40 and 100 F will extend the potency of the product.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

<u>Component</u>	<b>EXPOSURE LIMITS 8 hrs TWA (ppm)</b>			
	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>NIOSH REL</u>	<u>AIHA WEEL</u>
No components have established exposure limits.				

### ENGINEERING CONTROLS:

None required. An eye wash is recommended if routinely using large volumes of the product.

### PERSONAL PROTECTION:

None required.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Vapor Pressure:</b>	Unknown	<b>Vapor Density:</b>	similar to water
<b>Specific Gravity:</b>	1.01 g/ml	<b>Evaporation Rate:</b>	similar to water
<b>Solubility in Water:</b>	completely	<b>Freezing Point:</b>	32 F
		<b>Odor:</b>	slight
<b>pH:</b>	neutral	<b>Appearance:</b>	Amber colored liquid
<b>Boiling Point:</b>	similar to water	<b>Physical State:</b>	Liquid
<b>Kinematic Viscosity:</b>	Unknown	<b>Flammable Range:</b>	NA
<b>Flash Point:</b>	NA		

## 10. STABILITY AND REACTIVITY

### GENERAL:

Stable under ordinary conditions of use and storage. Product will stratify at 32 F. May be thawed and used.

### INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:

Avoid strongly acidic conditions and high concentrations of ammonia. Do not mix with aqua ammonium (ammonium hydroxide), sulfuric acid, urea sulfuric acid, phosphoric acid, soil fumigants or soil fungicides.

### HAZARDOUS DECOMPOSITION:

None

## 11. TOXICOLOGICAL INFORMATION

### TOXICITY TO ANIMALS:

<u>Component</u>	<u>Acute Test</u>	<u>Value</u>	<u>Species</u>
None available. Not expected to be toxic.			

### ROUTES OF ENTRY:

Skin contact; eye contact through splashing; and oral contact through accidental ingestion; respiratory inhalation is not a significant route unless a mist is created.

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## CHRONIC EFFECTS ON HUMANS:

No known effects.

## Eyes:

The liquid can irritate eyes if splashed into the eyes and not washed out immediately. Not expected to result in irreversible eye damage unless it is allowed to remain in the eyes.

## Skin:

May cause skin irritation and redness if not washed off.

## Ingestion:

Ingesting large quantities may result in gastrointestinal distress.

## Inhalation:

Not a significant route of exposure unless a mist is created.

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## 12. ECOLOGICAL INFORMATION

### Component

### Acute Test

### Value

### Species

No data available but not expected to be aquatically toxic.

## PRODUCTS OF BIODEGRADATION:

Less toxic than the material, itself.

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## 13. DISPOSAL CONSIDERATIONS

This is not a hazardous waste based on EPA CFR40 unless mixed with something that would render it hazardous. Dispose of in accordance with local and state regulatory requirements.

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## 14. TRANSPORT INFORMATION

The following proper shipping name, hazard class and packing group are in accordance to transportation regulations.

Mode of Transportation	Domestic Surface (USDOT)	Domestic Air	International Air (IATA)
UN Number	Not Regulated	Not Regulated	Not Regulated
Proper Shipping Name			
Hazard Class			
Packing Group			
Hazard Label			
Handling Label(s)			
ERG#:			
Packaging Instructions:			

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## 15. REGULATORY INFORMATION

### Chemical Inventory Status

Ingredients listed on: TSCA, DSL, Japan, and EC inventories.

SARA Section 302 - Emergency Planning Notification - None

SARA Section 304 - Emergency Release Notification - None None

SARA 311/312 - Hazard categories for SARA Section 311/312 Reporting - None

CERCLA - Hazardous Substance - None

RCRA Hazardous Waste Classification - None

### California Proposition 65:

No components listed on Proposition 65 list of known cancer causing agents.

## 16. OTHER INFORMATION

### UNITED STATES NATIONAL FIRE PROTECTION ASSOCIATION (U.S. NFPA)

NFPA Category	ACE™
Health:	1
Fire:	0
Reactivity:	0

### CREATION/REVISION SUMMARY:

Created on:

28-Apr-16

Cheryl Sykora, CIH, CSP, CHMM

Registered Specialist, SDS and Label Authoring #118534

LEGEND TECHNICAL SERVICES, INC.

88 Empire Drive, Saint Paul, Minnesota 55103

651-221-4085



THE INFORMATION RELATES TO THIS SPECIFIC INFORMATION. IT MAY NOT BE VALID FOR THIS MATERIAL IF USED IN COMBINATION WITH ANY OTHER MATERIALS OR IN ANY PROCESS. IT IS THE USER'S RESPONSIBILITY TO SATISFY ONESELF AS TO THE SUITABILITY AND COMPLETENESS OF THIS INFORMATION FOR HIS OWN PARTICULAR USE. ALL MATERIALS MAY PRESENT UNKNOWN HAZARDS AND SHOULD BE USED WITH CAUTION. ALTHOUGH CERTAIN HAZARDS ARE DESCRIBED HEREIN, WE CANNOT GUARANTEE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.