

# MATERIAL SAFETY DATA SHEET

## AB SHOREKLEAR-PLUS

1. Product And Company Identification			
<b>Supplier</b> Applied Biochemists (WI) A division of Advantis Technologies, Inc. W175 N11163 Stonewood Drive, Suite 234 Germantown, WI 53022  Telephone Number: (262) 255-4449 FAX Number: (262) 255-4268 Web Site: www.appliedbiochemists.com		<b>Manufacturer</b> Advantis Technologies, Inc. 1400 Bluegrass Lakes Parkway Alpharetta, GA 30004 United States  Telephone Number: (770) 521-5999 FAX Number: (770) 521-5959 Web Site: www.poolspacare.com	
<b>Supplier Emergency Contacts &amp; Phone Number</b> CHEMTREC - DAY OR NIGHT: (800) 424-9300		<b>Manufacturer Emergency Contacts &amp; Phone Number</b> CHEMTREC - DAY OR NIGHT: (800) 424-9300	
Issue Date: 03/27/2007  Product Name: AB SHOREKLEAR-PLUS Chemical Name: Isopropylamine Salt of Glyphosate CAS Number: Not Established Chemical Family: Aquatic Herbicide MSDS Number: 382			
2. Composition/Information On Ingredients			
Ingredient Name		CAS Number	Percent Of Total Weight
GLYPHOSATE, N-(PHOSPHONOMETHYL)GLYCINE, IN THE FORM OF ITSISOPROPROPYLAMINE SALT		38641-94-0	
Ingredients listed in this section have been determined to be hazardous as defined in 29CFR 1910.1200. Materials determined to be health hazards are listed if they comprise 1% or more of the composition. Materials identified as carcinogens are listed if they comprise 0.1% or more of the composition. Information on proprietary materials is available in 29CFR 1910.1200(i)(1).			
EMERGENCY OVERVIEW			
Keep out of reach of children. CAUTION. Harmful if swallowed. May cause eye irritation. Avoid contact with skin, eyes or clothing.			
3. Hazards Identification			
<b>Primary Routes(s) Of Entry</b> Inhalation, eye and skin contact.			
<b>Eye Hazards</b> This product is no more than mildly irritating based on toxicity studies.			
<b>Skin Hazards</b> This product is no more than slightly toxic and no more than slightly irritating based on toxicity studies.			
<b>Ingestion Hazards</b> This product is no more than slightly toxic based on toxicity studies. No significant adverse health effects are expected to develop if only small amounts (less than a mouthful) are swallowed.			
<b>Inhalation Hazards</b> Low inhalation toxicity.			
<b>Conditions Aggravated By Exposure</b> None known.			

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### 4. First Aid Measures

#### Eye

In case of contact, hold eyelids apart and immediately rinse eyes slowly and gently with plenty of water for at least 15 - 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Consult Physician.

#### Skin

Remove contaminated clothing and shoes. In case of contact, immediately flush skin with plenty of water for at least 15 minutes. Call a physician or poison control center for treatment advice.

#### Ingestion

Call a physician or a poison control center immediately. If victim is fully conscious, have person sip a glass of water. DO NOT INDUCE VOMITING UNLESS TOLD TO DO SO BY THE POISON CONTROL CENTER OR DOCTOR. Never give anything by mouth to an unconscious victim.

#### Inhalation

If inhaled, remove to fresh air. If not breathing, give artificial respiration. Call a physician or a poison control center for further treatment advice.

### Fire Fighting (Pictograms)



### 5. Fire Fighting Measures

Flash Point: NA °F

Autoignition Point: ND °F

#### Fire And Explosion Hazards

Containers will burst from internal pressure under extreme fire conditions. If water is used to fight fire or cool containers, dike to prevent runoff contamination of municipal sewers and waterways. This product reacts with galvanized steel or unlined steel (except stainless steel) to produce hydrogen gas that may form a highly combustible gas mixture which could flash or explode.

Under fire conditions, may produce gases such as nitrogen oxides, carbon oxides and phosphorous oxides.

#### Extinguishing Media

In case of fire, use water (flood with water), dry chemical, CO<sub>2</sub>, or alcohol foam.

#### Fire Fighting Instructions

Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

### 6. Accidental Release Measures

Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal. Dike spill using absorbant or impervious materials such as earth, sand, or clay. Collect and contain contaminated absorbant and dike material for disposal. Thoroughly scrub floor or other impervious surface with a strong industrial detergent and rinse with water. Large spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

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### Handling & Storage (Pictograms)



### 7. Handling And Storage

#### Handling Precautions

Avoid breathing spray mist. Remove contaminated clothing and wash clothing before reuse. Wash thoroughly with soap and water after handling. Spray solutions of this product should be mixed, stored, and applied using only stainless steel, aluminum, fiberglass, plastic or plastic-lined containers.

DO NOT MIX, STORE, OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINE STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

#### Storage Precautions

Do not contaminate water, foodstuff, feed or seed by storage or disposal. To be stored in original container and placed in an area inaccessible to children.

### Protective Clothing (Pictograms)



### 8. Exposure Controls/Personal Protection

#### Engineering Controls

Where engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.

#### Eye/Face Protection

Safety glasses with side shields or goggles recommended.

#### Skin Protection

Wear suitable protective clothing including chemical-resistant gloves, long pants, long-sleeved shirt, socks and shoes.

#### Respiratory Protection

None normally required. If vapors or mists exceed acceptable levels, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for use against pesticides.

#### Other/General Protection

Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material: 1) Do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored. 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

### 9. Physical And Chemical Properties

#### Appearance

Light amber colored liquid.

#### Odor

Little odor.

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### 9. Physical And Chemical Properties - Continued

#### **Odor - Continued**

Chemical Type: Mixture  
Physical State: Liquid  
Boiling Point: Not Determined °F  
Specific Gravity: 1.063 @ 20C  
Packing Density: 8.91 pounds/gallon  
Vapor Pressure: Not Determined  
Vapor Density: Not Determined  
pH Factor: 4.5-5.2  
Solubility: Soluble in water  
Viscosity: 4.7 cPs @ 25C  
Evaporation Rate: Not Determined  
Freezing Point: 10F (-12C)

### 10. Stability And Reactivity

Stability: Stable under normal handling and storage conditions.  
Hazardous Polymerization: Will not occur.

#### **Conditions To Avoid (Stability)**

Excessive heat. Do not store near heat or flames.

#### **Incompatible Materials**

Strong oxidizing agents: bases and acids. This product reacts with galvanized steel or unlined steel (except stainless steel) to product hydrogen gas that may form a highly combustible gas mixture which could flash or explode.

#### **Hazardous Decomposition Products**

Under fire conditions, may produce gases such as nitrogen oxides, carbon oxides and phosphorous oxides.  
Hydrogen gas as stated above.

### 11. Toxicological Information

#### **Acute Studies**

Data from laboratory studies conducted on a similar formulation:

Oral: Rat LD50:>5,000 mg/kg  
Dermal: Rabbit LD50:.5,000 mg/g  
Inhalation: Rat 4-hr LC50:>5.0 mg/L  
Eye Irritation: Rabbits: Mildly irritating  
Skin irritation: Rabbits: Slightly irritating  
Skin sensitization: Not a contact sensitizer in guinea pigs following repeated skin exposure.

#### **Subchronic (Target Organ Effects)**

Repeated overexposure to glyphosate may decrease body weight gains and effects to liver.

#### **Chronic/Carcinogenicity**

Prolonged overexposure to glyphosate may cause effects to the liver. There was no evidence of carcinogenicity in animal studies using glyphosate. EPA has given glyphosate a Group E classification (evidence of non-carcinogenicity in humans).

#### **Teratogenicity (Birth Defects)**

In animal studies, glyphosate did not cause birth defects in animals; other effects were seen in the fetus only at doses which caused toxic effects to the mother.

#### **Reproductive Effects**

In laboratory animal studies with glyphosate, effects on reproduction have been seen only at doses that produced

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### 11. Toxicological Information - Continued

#### Reproductive Effects - Continued

significant toxicity to the parent animals.

#### Toxicity of Isopropylamine Salt of Glyphosate:

In repeat dosing studies (6 month), dogs fed a more concentrated form of this product exhibited slight body weight changes. Following repeated skin exposure (3 weeks) to this product, skin irritation was the primary effect in rabbits. No skin allergy was observed in guinea pigs following repeated skin exposure.

Additional toxicity information is available on glyphosate, the active herbicidal ingredient of this product. Following repeated exposures (90 days) to glyphosate in their feed, decreased weight gains were noted at the highest level in mice, while no treatment-related effects occurred in rats. Following repeated skin exposure (3 weeks) to glyphosate, slight skin irritation was the primary effect observed in rabbits. No skin allergy was observed in guinea pigs following repeated skin exposure. There was no evidence of effects on the nervous system, including delayed effects in chickens (repeat oral doses) or cholinesterase inhibition in rats (single oral doses). Reduced body weight gain and effects on liver tissues were observed with long-term (2 year) feeding of glyphosate to mice at high-dose levels. Reduced body weight gain and eye changes were observed at the high-dose level in one long-term (2 year) feeding study with rats, while no treatment related effects occurred in a second study. No adverse effects were observed in feeding studies with dogs. Glyphosate did not produce tumors in any of these studies.

Based on the results from the chronic studies, EPA has classified glyphosate in category E (evidence of non-carcinogenicity for humans). No birth defects were noted in rats and rabbits given glyphosate orally during pregnancy, even at amounts which produced adverse effects on the mothers. Glyphosate was fed continuously to rats at very high dose levels for 2 successive generations. Toxicity was reported in offspring from the high dose, a level which also produced adverse effects on the mothers. In a 3 generation study conducted at lower dose levels, no effects were seen on the ability of the male or female rats to reproduce. Glyphosate has produced no genetic changes in a variety of standard tests using animals and animal or bacterial cells.

#### Assessment Carcinogenicity:

None listed with ACGIH, IARC, NTP or OSHA

### 12. Ecological Information

#### Ecotoxicological Information

Available data on similar formulations suggest that this product would be slightly to moderately toxic to aquatic organisms and practically non-toxic to avian species, honey bees and earthworms.

#### Data on Glyphosate Technical

Bluegill Sunfish 96-hr LC50: 120 mg/l

Rainbow Trout 96-hr LC50: 86 mg/l

Daphnia Magna 48-hr LC50: 780 mg/l

Bobwhite Quail 8-day Dietary LC50: >4,500 ppm

Mallard Duck 8-day Dietary LC50: >4,500 ppm

#### Environmental Fate Information

In the environment, salts of glyphosate rapidly dissociate to glyphosate, which absorbs strongly to soil and is expected to be immobile in soil. Glyphosate is readily degraded by soil microbes to AMPA (aminomethyl phosphonic acid) that is further degraded to carbon dioxide. Glyphosate and AMPA are unlikely to enter ground water due to their strong adsorptive characteristics. Terrestrially-applied glyphosate has the potential to move into surface waters through soil erosion because it may be adsorbed to soil particles suspended in the runoff. Aquatic applications registered for certain formulations may also result in glyphosate entering surface waters. Complete degradation is slow, but dissipation in water is rapid because glyphosate is bound in sediments and has low biological availability to aquatic organisms. These characteristics suggest a low potential for bioconcentration in aquatic organisms and this has been verified by laboratory investigations of glyphosate bioconcentration in numerous marine and freshwater organisms with and without soil. The maximum whole body factors for fish were observed to

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### 12. Ecological Information - Continued

#### Environmental Fate Information - Continued

be less than 1X. Bioconcentration factors for sediment dwelling mollusks and crayfish tended to be slightly higher, but were always less than 10X. In addition, any residues accumulated in organism were rapidly eliminated.

### 13. Disposal Considerations

If empty - Do not reuse this container. Place in trash or offer for recycling if available.

If partly filled - If product cannot be used as directed, call your local solid waste agency or 1-800-CLEANUP for disposal instructions. Never place unused product down any indoor (including toilet) or outdoor (including sewer) drain.

### 14. Transport Information

#### Proper Shipping Name

Not Regulated

#### Hazard Class

None Assigned

#### DOT Identification Number

NONE

### 15. Regulatory Information

#### U.S. Regulatory Information

**TSCA Inventory:** This product is exempted from TSCA because it is solely for FIFRA regulated use.

#### SARA Hazard Notification/Reporting:

**Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370):** Immediate

**Section 313 Toxic Chemicals:** None


**Reportable Quantity (RQ) under U.S. CERCLA:** None

**RCRA Waste Code:** None

#### State Regulations

Other state regulations may apply. Check individual state requirements.

**California Proposition 65:** Not listed

NFPA	HMIS								
	<table border="1"><tr><td>HEALTH</td><td>1</td></tr><tr><td>FLAMMABILITY</td><td>0</td></tr><tr><td>REACTIVITY</td><td>0</td></tr><tr><td>PERSONAL PROTECTION</td><td>B</td></tr></table>	HEALTH	1	FLAMMABILITY	0	REACTIVITY	0	PERSONAL PROTECTION	B
HEALTH	1								
FLAMMABILITY	0								
REACTIVITY	0								
PERSONAL PROTECTION	B								

### 16. Other Information

#### Revision/Preparer Information

MSDS Preparer: JHW

This MSDS Supercedes A Previous MSDS Dated: 10/06/2006

#### Disclaimer

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained therein,

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### **Disclaimer - Continued**

and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purposes(s).

**Applied Biochemists (WI)**

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