

**APPLIED BIOCHEMISTS SHORE-KLEAR AQUATIC HERBICIDE**

MSDS No. 365

## MATERIAL SAFETY DATA SHEET

**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

**Product Name:** Applied Biochemists Shore-Klear™ Aquatic Herbicide

**Synonyms:** None

**Company Name:** Applied Biochemists  
W175 N11163 Stonewood Drive, Suite 234  
Germantown, WI 53022

**Phone Numbers:** **For Chemical Emergency, Spill, Leak, Fire, Exposure, Or Accident, Call CHEMTREC Day or Night: 1-800-424-9300.**  
For additional non-emergency information, call: 1-800-558-5106

**Date:** January 6, 2004

**Supersedes:** March 1, 1999

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

COMPONENT	CAS NO.	% BY WEIGHT
Active Ingredient: Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt	38641-94-0 (as the salt) (1071-83-6 for glyphosate Acid)	53.8
Inert Ingredients*:		<u>46.2</u>
Total		100.0

\*No hazardous chemicals under the criteria of the OSHA Hazard Communication Standard (29 CFR Part 1910.1200). See Section 8 for exposure limits.

**3. HAZARDS IDENTIFICATION****Emergency Overview:**

**Appearance and Odor:** Colorless and odorless solution.

**Cautionary Statements:** Keep out of reach of children. CAUTION: HARMFUL IF INHALED. Avoid breathing spray mist. Remove clothing and wash clothing before reuse. Wash thoroughly with soap and water after handling.

**Potential Adverse Health Effects:**

**Likely Routes of Exposure:** Inhalation and skin contact.

**Eye Contact:** No more than slightly irritating based on toxicity studies.

**Skin Contact:** No more than slightly toxic or irritating based on toxicity studies.

**Ingestion:** 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.

**Inhalation:** No more than slightly toxic if inhaled based on toxicity studies.

Refer to Section 11 for toxicological information.

**4. FIRST AID MEASURES**

**If Inhaled:** Remove individual to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

**5. FIRE FIGHTING MEASURES**

**Flash Point:** This material is not combustible as tested by the Tag Cup Test.

**Auto Ignition Temperature:** Not determined

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

**Special Fire Fighting Procedures:** Firefighters and others that may be exposed to vapor, mists, dusts, or products of combustion should wear full protective clothing and self-contained breathing apparatus. Equipment should be thoroughly cleaned after use.

**Unusual Fire or Explosion Hazards:** None



## 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable for at least 5 years under normal conditions of warehouse storage. Heated facilities are not required.

**Conditions to Avoid:** Store above 10 F (-12 C) to keep from crystallizing.

**Incompatibility with Other Materials:** Spray solutions of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic and plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or 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.

**Hazardous Decomposition Products:** None Known

**Hazardous Polymerization:** Does not occur. This product can react with caustic (basic) materials to liberate heat. This is not a polymerization but rather a chemical neutralization in an acid-base reaction.

## 11. TOXICOLOGICAL INFORMATION

### Toxicological Data

Data from laboratory studies on this product are summarized below:

**Oral:** Practically Non-toxic, (Rat LD<sub>50</sub>:>5,000 mg/kg)

**Dermal:** Practically Non-toxic, (Rabbit LD<sub>50</sub>:>5,000 mg/kg)

**Inhalation:** Slightly Toxic, (Rat 4-hr LC<sub>50</sub>:>1.3 mg/l, the highest atmospheric concentration achievable in this study); FIFRA Category III, Not DOT poisonous

**Eye Irritation:** Non irritating, - Rabbits (6 animals): 24-hr exp.; Draize Average: 0.0/110; EU: Corneal Opacity: 0.0, Iris: 0.0, Erythema: 0.0, Chemosis: 0.0

**Skin Irritation:** Practically Non irritating - Rabbits (6 animals); 24-hr exp.; Draize Average: 0.1/8.0; EU: Erythema: 0.1, Edema: 0.0.

In repeat dosing studies (6-months), dogs fed this product exhibited slight body weight changes. Following repeated skin exposure (3-weeks) to this product, skin irritation was the only 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 in SHORE-KLEAR™ Aquatic Herbicide. Following repeated exposures (90-days) to glyphosate in their feed, decreased weight gains were noted at the highest test 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 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 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.

## 12. ECOLOGICAL INFORMATION

96-hr LC <sub>50</sub> : Bluegill:	>1,000 mg/l, Practically Nontoxic
96-hr LC <sub>50</sub> : Trout	>1,000 mg/l, Practically Nontoxic
48-hr EC <sub>50</sub> : Daphnia	930 mg/l, Practically Nontoxic
Oral LD <sub>50</sub> : Goat	5,700 mg/kg, Practically Nontoxic

This product was administered to Brahman-cross heifers by gavage, at daily dosages of 0, 540, 830, 1290 and 2000 mg/kg for 7 consecutive days. Clinical signs of toxicity, including loss of appetite, diarrhea and death (1290 and 2000 mg/kg)

were observed at 830 mg/kg or above. The no-effect level was considered to be 540 mg/kg/day. For environmental toxicity information with glyphosate, the active ingredient of SHORE-KLEAR™ Aquatic Herbicide, refer to other available Information on glyphosate.

### 13. DISPOSAL CONSIDERATIONS

Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, State or local procedures. Emptied container retains vapor and product residue. Observe all label safeguards until container is cleaned, reconditioned or

destroyed. Do not reuse container. If applicable, return emptied container in accordance with container return program. If not returned, triple rinse container, then puncture and dispose of in a sanitary landfill or by incineration or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

### 14. TRANSPORT INFORMATION

Follow the precautions indicated in the Handling and Storage Section, Section 7 of this MSDS.

<b>DOT Proper Shipping Name</b>	Not Applicable.
<b>DOT Hazard Class/I.D. No.:</b>	Not Applicable.
<b>DOT Label:</b>	Not Applicable
<b>U.S. Surface Freight Classification:</b>	Weed killing compound, N.O.I.B.N

### 15. REGULATORY INFORMATION

**SARA Hazard Notification:**

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

Not Applicable

Section 313 Toxic Chemical(s):

Not Applicable.

**Hazardous Chemical(s) under OSHA Hazard Standard Communication Standard:** Not Applicable

**Reportable Quantity (RQ) under U.S. CERCLA:** Not applicable.

**TSCA Inventory:** All components are on the US EPA's TSCA Inventory List.

### 16. OTHER INFORMATION

This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABELING (attached to and accompanying the product container). This MSDS provides important health, safety and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.

Although the information and recommendations set forth herein (hereinafter "Information") are no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for nature whatsoever resulting from the use of or reliance upon Information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.

SHORE-KLEAR™ is a trademark of Applied Biochemists