Material Safety Data Sheet

GlySupreme Aquatic Herbicide

Manufactured for MEY Corporation
121 S. Estes Drive, Suite 101 Chapel Hill, NC 27514 U.S.A.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name
GlySupreme Aquatic Herbicide

EPA Reg. No.
80967-5

Chemical name
Not applicable

Synonyms
None

Company
MEY Corporation, 121 S. Estes Drive, Suite 101, Chapel Hill, NC 27514

Telephone: (919) 932-5800 Fax: (919) 932-5820

Emergency numbers
FOR CHEMICAL EMERGENCY, SPILL LEAK, FIRE, EXPOSURE, OR ACCIDENT Call CHEMTREC – Day or Night: 1-800-424-9300 toll free in the continental U.S., Puerto Rico, Canada, or Virgin Islands. For calls originating elsewhere: 1-703-527-3887 (collect calls accepted).

2. COMPOSITION/INFORMATION ON INGREDIENTS

Active ingredient
Isopropylamine salt of N-(phosphonomethyl)glycine; {Isopropylamine salt of glyphosate}

Composition

COMPONENT	CAS No.	% by weight (approximate)
Isopropylamine salt of glyphosate	38641-94-0	53.8
Other ingredients		46.2

3. HAZARDS IDENTIFICATION

Emergency overview
Appearance and odor (color/form/odor): Amber – Clear, pal yellow liquid

CAUTION
CAUSES MODERATE EYE IRRITATION

Potential health effects
Likely routes of exposure
Skin contact, eye contact, and inhalation.

Eye contact, short term
Not expected to produce significant adverse effects when recommended use instructions are followed.

Skin contact, short term
Not expected to produce significant adverse effects when recommended use instructions are followed.

Inhalation, short term
Not expected to produce significant adverse effects when recommended use instructions are followed.

OSHA Status
This product is hazardous according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Refer to Section 11 for toxicological and Section 12 for environmental information.

4. FIRST AID MEASURES

Eye Contact
Immediately flush with plenty of water. Continue for at least 15 minutes. If easy to do, remove contact lenses. If there are persistent symptoms, obtain medical advice.

Skin contact
Immediately wash affected skin with plenty of water. Take off contaminated clothing, wristwatch, and jewelry. Wash clothes before re-use.

Inhalation
Remove to fresh air.

Ingestion
Immediately offer water to drink. Never give anything by mouth to an unconscious person. Do NOT induce vomiting unless directed by medical personnel. If symptoms occur, get medical attention.

Advice to doctors
This product is not an inhibitor of cholinesterase.

Antidote
Treatment with atropine and oximes is not indicated.

5. FIRE FIGHTING MEASURES

Flash point
None

Extinguishing media
Recommended: Water, foam, dry chemical, carbon dioxide (CO2).

Unusual fire and explosion hazards
Minimize use of water to prevent environmental contamination.

Environmental precautions
See Section 6.

Hazardous products of combustion
Carbon monoxide (CO), nitrogen oxides (NOx), phosphorus oxides (PxOy).

Fire-fighting equipment
Self-contained breathing apparatus. Equipment should be thoroughly decontaminated after use.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Use personal protection recommended in Section 8.

Environmental precautions
SMALL QUANTITIES: Low environmental hazard.
LARGE QUANTITIES: Minimize spread. Contain spillage with sand bags or other means. Keep out of drains, sewers, ditches and water ways. Notify authorities.

Methods for cleaning up
Absorb in earth, sand or absorbent material. Dig up heavily contaminated soil. Collect in containers for disposal. Refer to Section 7 for types of containers. Flush residues with small quantities of water. Minimize use of water to prevent environmental contamination. Refer to Section 13 for disposal of spilled material.

7. HANDLING AND STORAGE

Good industrial practice in housekeeping and personal hygiene should be followed.

Handling
Avoid contact with eyes. When using do not eat drink or smoke. Wash hands thoroughly after handling or contact. Thoroughly clean equipment after use. Do not contaminate drains, sewers and water ways when disposing of equipment rinse water. Emptied packages retain product residue. FOLLOW LABELLED WARNINGS EVEN AFTER CONTAINER IS EMPTIED.

Storage
Compatible materials for storage: stainless steel, aluminum, fiberglass, plastic. Incompatible materials for storage: unlined mild steel, galvanized steel, see Section 10. Keep out of reach of children. Keep away from food, drink and animal feed. Keep only in the original container. Shelf life currently under test. Recommended maximum shelf life is 2 years. Follow all local/regional/national regulations.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Airborne exposure limits

Components	Exposure Guidelines
Isopropylamine salt of glyphosate	No specific occupational exposure limit has been established.
Other ingredients	No specific occupational exposure limit has been established.

Engineering controls
No special requirement when used as recommended.

Eye protection
If there is significant potential for contact: Wear chemical goggles. Applicators and other handlers must wear eye protection.

Skin protection
If repeated or prolonged contact: Wear chemical resistant gloves.

Respiratory protection
No special requirement when used as recommended.

When recommended, consult manufacturer of personal protective equipment for the appropriate type of equipment for a given application.

9. PHYSICAL AND CHEMICAL PROPERTIES

These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

Color/color range:	Amber - Brown
Form:	Liquid (viscous)
Odor:	None
Flash point:	None
Specific gravity:	1.21 @ gm/L 20 C
pH:	4.8 – 6.0
Viscosity:	43 mPa @ 20 C

10. STABILITY AND REACTIVITY

Stability
Stable under normal conditions of handling and storage.

Hazardous decomposition
Thermal decomposition: Hazardous products of combustion: see Section 5.

Materials to avoid/Reactivity
Reacts with galvanized steel or unlined mild steel to produce hydrogen, a highly flammable gas that could explode.

11. TOXICOLOGICAL INFORMATION

This section is intended for use by toxicologists and other health professionals. Data obtained on similar products and on components are summarized below.

Acute oral toxicity
Rat, LD50: > 5,000 mg/kg body weight. Practically non-toxic. FIFRA category IV.

Acute dermal toxicity
Rat, LD50: > 5,000 mg/kg body weight. Practically non-toxic. FIFRA category IV.

Skin irritation
Rabbit, 6 animals, OECD 404 test: Days to heal: 10. Primary Irritation Index (PII): 1.7/8.0. Slight irritation. FIFRA category IV.

Eye irritation
Rabbit, 6 animals, OECD 405 test: Days to heal: 7. Moderate irritation. FIFRA category III.

Acute inhalation toxicity
Rat, LC50, 4 **hours, aerosol:** > 2.01 mg/L. Practically non-toxic. FIFRA category IV.

Skin sensitization
Guinea pig, Buehler test: Positive incidence: 0 %. Negative. No skin sensitization

N-(phosphonomethyl)glycine; (glyphosate)

Mutagenicity
In vitro and in vivo mutagenicity test(s): Not mutagenic.

Repeated dose toxicity:
Rabbit, dermal, 21 days: NOAEL toxicity: > 5,000 mg/kg body weight/day. Target organs/systems: none. Other effects: none.

Rat, oral, 3 months: NOAEL toxicity: > 20,000 mg/kg diet. Target organs/systems: none. Other effects: none.

Carcinogenicity
Mouse, oral, 24 months: NOEL tumor: > 30,000 mg/kg diet. NOAEL toxicity: ~ 5,000 mg/kg diet. Tumors: none. Target organs/systems: liver. Other effects: decrease of body weight gain, and histopathologic effects.

Rat, oral, 24 months: NOEL tumor: > 20,000 mg/kg diet NOAEL toxicity: ~ 8,000 mg/kg diet. Tumors: none. Target organs/systems: eye. Other effects: decrease of body weight gain, and histopathologic effects.

Toxicity to reproduction/fertility
Rat, oral, 3 generations: NOAEL toxicity: > 30 mg/kg body weight. NOAEL reproduction: > 30 mg/kg body weight. Target organs/systems in parents: none. Other effects in parents: none. Target organs/systems in pups: none. Other effects in pups: none.

Developmental toxicity/teratogenicity
Rat, oral, 6 - 19 days of gestation: NOAEL toxicity: 1,000 mg/kg body weight. NOAEL development: 1,000 mg/kg body weight. Other effects in mother animal: decrease of body weight gain, decrease of survival. Developmental effects: weight loss, post-implantation loss, delayed ossification. Effects on offspring only observed with maternal toxicity.

Rabbit, oral, 6 - 27 days of gestation: NOAEL toxicity: 175 mg/kg body weight NOAEL development: 175 mg/kg body weight. Target organs/systems in mother animal: none Other effects in mother animal: decrease of survival. Developmental effects: none.

12. ECOLOGICAL INFORMATION

This section is intended for use by ecotoxicologists and other environmental specialists. Data obtained on similar products and on components are summarized below.

Similar formulation

Aquatic toxicity, fish

Rainbow trout (Oncorhynchus mykiss): Acute toxicity, 96 hours. Static, LC50: 5.4 mg/L. Moderately toxic.

Bluegill sunfish (Lepomis macrochirus): Acute toxicity, 96 hours. Static, LC50: 7.3 mg/L. Moderately toxic.

Aquatic toxicity, invertebrates

Water flea (*Daphnia magna*): Acute toxicity, 48 hours. Static, EC50: 11 mg/L. Slightly toxic.

Avian toxicity

Mallard duck (*Anas platyrhynchos*): Dietary toxicity, 5 days. LC50: > 5,620 mg/kg diet. Practically non-toxic.

Bobwhite quail (*Colinus virginianus*): Dietary toxicity, 5 days. LC50: > 5,620 mg/kg diet. Practically non-toxic.

Arthropod toxicity

Honey bee (*Apis mellifera*): Oral/contact, 48 hours. LD50: > 100 µg/bee. Practically non-toxic.

Soil organism toxicity, invertebrates

Earthworm (*Eisenia foetida*): Acute toxicity, 14 days. LC50: > 1,250 mg/kg soil. Practically non-toxic.

Isopropylamine salt of glyphosate (62%)

Aquatic toxicity, algae/aquatic plants

Green algae *(Scenedesmus subspicatus*): Acute toxicity, 72 hours. Static, EbC50 (biomass): 72.9 mg/L. Slightly toxic.

N-(phosphonomethyl)glycine; (glyphosate)

Bioaccumulation

Bluegill sunfish (*Lepomis macrochirus*): Whole fish: BCF: No significant bioaccumulation is expected.

Dissipation

Soil, field: Half life: 2 - 174 days. Koc: 884 - 60,000 L/kg. Adsorbs strongly to soil.

Water, aerobic: Half life: < 7 days.

13. DISPOSAL CONSIDERATIONS

Product
Recycle if appropriate facilities/equipment available. Burn in special, controlled high temperature incinerator. Keep out of drains, sewers, ditches and water ways. Follow all local/regional/national/ international regulations.

Container
See the individual container label for disposal information. Triple rinse empty containers. Pour rinse water into spray tank. Store for collection by approved waste disposal service. Recycle if appropriate facilities/equipment available. Emptied containers retain vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed. Follow all local/regional/national/ international regulations.

14. TRANSPORT INFORMATION

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

Not hazardous under the applicable DOT, ICAO/IATA, IMO, TDG and Mexican regulations.

15. REGULATORY INFORMATION

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

OSHA Hazardous Components
Surfactant(s)

SARA Title III Rules
Section 311/312 Hazard Categories: Immediate.
Section 302 Extremely Hazardous Substances: Not applicable.
Section 313 Toxic Chemical(s): Not applicable.

CERCLA Reportable quantity
Not applicable.

16. OTHER INFORMATION

The information given here is not necessarily exhaustive but is representative of relevant, reliable data. Follow all local/regional/national regulations. Please consult supplier if further information is needed.

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.

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