SAFETY DATA SHEET

EMERGENCY CALL: 1-800-424-9300 (Chemtrec)

1. IDENTIFICATION

PRODUCT NAME: FarmWorks™ 41% Glyphosate Plus Concentrate with Surfactant Grass & Weed Killer
DESCRIPTION: A liquid herbicide.
EPA Reg. No.: 86068-4-84009

COMPANY IDENTIFICATION:
Ragan & Massey, Inc.
101 Ponchatoula Parkway
Ponchatoula, LA 70454

2. HAZARD IDENTIFICATION

WARNING
Causes serious eye irritaiton
Harmful if inhaled
Toxic to aquatic life

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Chemical Name</th>
<th>CAS #</th>
<th>Composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glyphosate IPA Salt</td>
<td>N-(phosphonomethyl)glycine, isopropylamine salt</td>
<td>38641-94-0</td>
<td>41.0%</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. This product is identified as FARMWORKS™ 41% Glyphosate Plus Concentrate with Surfactant Grass & Weed Killer, EPA Registration No. 86068-4-84009. You may also contact Chemtrec® at 1-800-424-9300 day or night, for chemical emergency, spill, leak, fire, exposure, or accident.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. If eye irritation persists: Get medical advice/attention.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a doctor or poison control center if you feel unwell.

5. FIREFIGHTING MEASURES

Flash Point: N/A
Flammable Limits: Not determined
Fire and Explosion Hazards: Product may generate irritating or toxic gasses through thermal decomposition.
Extinguishing Medium: Water spray, dry foam, CO₂, or dry chemical
Fire Fighting Equipment: Firefighters should be equipped with self-contained positive pressure breathing apparatus and full bunker gear.
Fire Fighting Instructions: Evacuate area and fight fire from a safe distance upwind. A foam or dry chemical fire extinguishing system is preferred to prevent environmental damage from excessive water runoff. If water is used, avoid heavy hose streams. If possible, dike and collect water used to fight fire to prevent/minimize run off.
Hazardous Combustion Products: Oxides of carbon, nitrogen, and phosphorus.
NFPA Ratings: Health – 2 / Flammability – 1 / Reactivity - 0
6. ACCIDENTAL RELEASE MEASURES

Clean up spills immediately. Isolate and post spill area. Wear protective clothing and personal protective equipment as prescribed in Section 8 of this SDS. Keep unprotected persons and animals out of area.

Small Spills: Absorb spill with inert material such as dry sand, vermiculite or fuller’s earth, then place in a chemical waste container.

Large Spills: Dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify and scrape up for disposal. After removal, scrub the area with detergent and water and neutralize with dilute alkaline solutions of soda ash and lime.

7. HANDLING AND STORAGE

Keep out of reach of children.

Handling: Do not get in eyes, on skin, or on clothing.

Storage: Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Keep container closed to prevent spills and contamination. Store above 10°F (-12°C) to keep product from crystallizing. Do not contaminate water, foodstuff, feed or seed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Personal Protective Equipment: Wear long-sleeved shirt and long pants, shoes plus socks, and safety glasses or chemical goggles.

General: Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product’s concentrate. Follow manufacturer’s instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Clear, viscous green or yellow liquid
Odor: Slight odor
pH: 4.64
Specific Gravity: 1.178 g/mL
Solubility: Soluble in water

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Excessive heat. Do not store near heat or flame.
CHEMICAL STABILITY: This product is stable under normal handling and storage conditions.
INCOMPATIBILITY WITH OTHER MATERIALS: Galvanized steel or unlined steel, strong oxidizers and bases.
HAZARDOUS DECOMPOSITION PRODUCTS: Heat and fire may result in thermal decomposition and the release oxides of carbon, nitrogen, and phosphorus.
HAZARDOUS POLYMERIZATION: Will not occur.
11. TOXICOLOGICAL INFORMATION

The following information is for a similar product formulation:

**ORAL TOXICITY (rat LD₅₀):** > 5,000 mg/kg

**DERMAL TOXICITY (rat LD₅₀):** > 2,000 mg/kg

**INHALATION TOXICITY (rat LC₅₀):** > 2.05 mg/L (4-hour)

**EYE IRRITATION:** Rabbit – Moderately irritating, may cause corneal injury

**SKIN IRRITATION:** Rabbit – Non-irritating

**SKIN SENSITIZATION:** Not a contact sensitizer

**CARCINOGENICITY:**

- EPA: Not Listed
- ACGIH: Not Listed
- NTP: Not Listed
- IARC: Not Listed
- OSHA: Not Listed

**MUTAGENIC TOXICITY:** No evidence of mutagenic effects during *in vivo* and *in vitro* assays.

**REPRODUCTIVE TOXICITY:** Not known to cause reproductive or birth defects at normal exposure levels.

12. ECOLOGICAL INFORMATION

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

Available data suggests that the active ingredient, Glyphosate acid, is slightly to moderately toxic to aquatic organisms and practically non-toxic to avian species, honey bees and earthworms.

The following information is for the active ingredient, Glyphosate acid:

**AQUATIC TOXICITY**

- Rainbow Trout (96-hr LC₅₀): 8.2 mg/L
- Bluegill (96-hr LC₅₀): 5.8 mg/L
- Daphnia (48-hr LC₅₀): 37 mg/L
- Algae (72-hr EC₅₀): 2.1 mg/L

**AVIAN TOXICITY**

- Bobwhite Quail (8-day LC₅₀): > 6,300 ppm
- Mallard Duck (8-day LC₅₀): > 6,300 ppm

13. DISPOSAL CONSIDERATIONS

**PESTICIDE DISPOSAL:** 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.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. Refer to the product label for specific container disposal instructions.

14. TRANSPORT INFORMATION

**US DOT:**

- Not regulated by DOT.
15. REGULATORY INFORMATION

FIFRA –
This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. The following is the hazard information as required on the pesticide label:

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**WARNING.** Causes substantial but temporary eye injury. Harmful if inhaled or absorbed through skin. Do not get in eyes, on skin, or on clothing.

See inside label booklet for additional Precautionary Statements and Directions for Use including Storage and Disposal instructions.

**ENVIRONMENTAL HAZARDS**

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

**PHYSICAL OR CHEMICAL HAZARDS**

Spray solutions of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic or plastic-lined steel containers.

**DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS.** This product or spray solutions of this product react with such containers and tanks to product 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.

All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The regulatory information presented below is pertinent only when this product is handled outside of the normal use and application as a pesticide. This product is excluded from listing requirements under EPA/TSCA.

**SARA Title III – Section 302 Extremely Hazardous Substances**

Not listed

**SARA Title III – Section 311/312 Hazard Categories**

Immediate

**SARA Title III – Section 312 Threshold Planning Quantity**

N/A

**SARA Title III – Section 313 Reportable Ingredients**

None

**CERCLA Reportable Quantity (RQ) –**

None

**CALIFORNIA PROP 65 STATUS –**

This product does not contain any chemical known to the state of California to cause cancer or reproductive harm.

**CANADA –**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.
16. OTHER INFORMATION

This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-ACCEPTED 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-accepted label.

Although the information and recommendations set forth herein (hereinafter “Information”) are presented in good faith and believed to be correct as of the date hereof, Ragan and Massey, Inc. makes 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 their purposes prior to use. In no event will Ragan and Massey, Inc. be responsible for damages of any nature whatsoever resulting from the use or of reliance upon Information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HERUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.

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SDS Version: 1.0
Effective Date: 05/15/2015