ROUNDUP UltraMAX™ Herbicide

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: ROUNDUP UltraMAX™ Herbicide
EPA Reg. No.: 524-512
Chemical name: Not applicable
Synonyms: None
Company: MONSANTO Company, 800 N. Lindbergh Blvd., St. Louis, MO, 63167
Telephone: 800-332-3111, Fax: 314-694-5557

2. COMPOSITION/INFORMATION ON INGREDIENTS

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

Composition

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>CAS No.</th>
<th>% by weight (approximate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropylamine salt of glyphosate</td>
<td></td>
<td>50.2</td>
</tr>
<tr>
<td>Other ingredients</td>
<td></td>
<td>49.8</td>
</tr>
</tbody>
</table>

The specific chemical identity is being withheld because it is trade secret information of Monsanto Company.

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

3. HAZARDS IDENTIFICATION

Emergency overview
Appearance and odour (colour/rom/odour): Amber - Brown / Liquid, (viscous) / Slight
CAUTION!
CAUSES MODERATE EYE IRRITATION
Potential health effects
Likely routes of exposure: Skin contact, eye contact, inhalation
Eye contact, short term: Irritating to eyes. 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. 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, jewellery. Wash clothes before re-use.
Inhalation: Remove to fresh air.

5. FIRE FIGHTING MEASURES

Flash point: None.
Extinguishing media: Recommended: Water, foam, dry chemical, carbon dioxide (CO2)
Unusual fire and explosion hazards
Minimise use of water to prevent environmental contamination.
Environmental precautions: see section 6.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protection recommended in section 8.
Environmental precautions
SMALL QUANTITIES:
Low environmental hazard.
LARGE QUANTITIES:
Minimise 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. Minimise 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.
Storage
Compatible materials for storage: stainless steel, aluminium, fibreglass, plastic Incompatible materials for storage: unlined mild steel, galvanised 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: 2 years. Follow all local/regional/national regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Airborne exposure limits

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.

Colour/colour range: Amber - Brown
Form: Liquid (viscous)
Odour: Slight
Flash point: None.
Specific gravity: 1.199
pH: 4.8

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions of handling and storage.

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, LC50: > 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 (PIII): 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 tumour: > 30,000 mg/kg diet NOAEL toxicity: ~ 5,000 mg/kg diet Tumours: none Target organs/systems: liver Other effects: decrease of body weight gain, histopathologic effects Rat, oral, 24 months: NOEL tumour: > 20,000 mg/kg diet NOAEL toxicity: ~ 8,000 mg/kg diet
Keep out of drains, sewers, ditches and water ways. Follow all local/regional/national 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 vapour and product residue. Observe all labelled safeguards until container is cleaned, reconditioned or destroyed. Follow all local/regional/national regulations.

**13. DISPOSAL CONSIDERATIONS**

*Product* Recycle if appropriate facilities/equipment available. Burn in special, controlled high temperature incinerator.

Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for the purposes prior to use. In no event will MONSANTO Company be responsible for damages of any nature whatsoever resulting from the use of or reliance upon NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREBUNDER WITH RESPECT TO INFORMATION OR TO THE PRODUCT TO WHICH INFORMATION REFERS.

000000005287

Effective date: 08/24/2001

**Material Safety Data Sheet**

DATABASE AND FORMAT COPYRIGHT © BY VPC Acquisiton Corporation. ALL RIGHTS RESERVED.