
1. IDENTIFICATION
Preparation : FRONTSWEEP

Supplier : Nomix Enviro
A division of Frontier Agriculture Ltd
The Grain Silos
Weyhill Road
Andover
Hampshire
SP10 3NT

2. COMPOSITION/INFORMATION ON INGREDIENTS

Isopropylamine salt of Glyphosate [Isopropylamine Salt of N-(Phosphonomethyl) Glycine] (CAS no 38641-94-0)	:	41.5 % w/w (485 g/l).
Ethoxylated tallow amine surfactant	:	15.5 % w/w
Water	:	to 100 % w/w

3.

HAZARDS IDENTIFICATION**Human health effects:**

On the basis of available information, this material is not expected to produce any significant adverse effects when recommended use instructions are followed.

Environmental effects:

On the basis of available information, this material is not expected to produce any significant adverse environmental effects when recommended use instructions are followed.

4. FIRST-AID MEASURES**Inhalation:**

Remove patient to fresh air.

Skin contact:

Take off immediately all contaminated clothing. Heavily contaminated clothing should be washed before re-use. Wash immediately with plenty of water. Obtain medical advice if there are persistent symptoms.

Eye Contact:

Rinse immediately with plenty of water.

Ingestion:

Obtain medical advice if there are persistent symptoms.

Further Medical Advice:

Systemic symptoms from accidental inhalation or ingestion are unlikely. Treatment consists of gastric lavage (within 3 hours) and administration of activated charcoal and standard supportive measures. Atropine and oximes are not indicated.

5. FIREFIGHTING MEASURES**Fire Fighting Protective Equipment:**

Not applicable. Non combustible product. Keep containers cool by spraying with water if exposed to fire.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions:**

Use personal protection recommended in section 8. In confined areas, wear breathing apparatus. If exposed to splashes, wear chemical goggles.

Methods of cleaning up:

Small spillage: Flush spill area with water. Large spillage: Absorb in earth or sand. Sweep up into containers for disposal. Dig up heavily contaminated soil and place in drums. (Refer to section 10 for types of containers and drums.) Flush spill area with water. Refer to section 13 for disposal of spilled material

Environmental precautions :

Low environmental hazard when used as recommended.

7. HANDLING AND STORAGE**Handling:**

Good industrial practice in housekeeping and personal hygiene should be followed. Handle so as to minimise the chance of skin or eye contact. When using do not eat, drink or smoke. Wash hands immediately after handling. Thoroughly clean equipment after use. For more information refer to product label.

Storage:

Keep out of reach of children. Keep away from food, drink and animal feeding stuffs. Keep only in the original container. Store above -15 °C. Keep at temperature not exceeding 40 °C. Minimum shelf life : 2 years.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Engineering measures:**

See section 10 - 'materials to avoid' for equipment.

Occupational exposure limits:

Not applicable.

Respiratory protection:

No special requirement when used as recommended.

Hand protection:

Wear impermeable gloves.

Eye protection:

No special requirement when used as recommended.

Skin protection:

Wear suitable protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	:	liquid
Colour	:	clear light amber to light brown
Odour	:	Slightly amine like.
pH (5% solution)	:	4.4 - 4.9

Flash Point : Not applicable, non combustible.
Specific gravity : 1.172
Solubility in water : Completely miscible with water.

10. STABILITY AND REACTIVITY**Conditions to avoid:**

Heating >100 °C may generate pressure due to steam formation from the water present. If very strongly heated, gives off harmful fumes.

Materials to avoid:

This material will react with galvanised or unlined steel, (except stainless steel) to produce hydrogen, a highly flammable gas that can cause explosions. The product should be mixed, stored and applied in stainless steel, aluminium, fiberglass, plastic or plastic lined containers.

Hazardous decomposition products:

Carbon dioxide, Phosphorus pentoxide.

11. TOXICOLOGICAL INFORMATION**Formulation:**

Oral LD50 (rat) : > 5000 mg/kg- Not classified as harmful.

Oral LD50 (mouse) : > 5000 mg/kg.

Dermal LD50 (rabbit) : > 5000 mg/kg- Not classified as harmful.

Eye contact:

Not irritating

Skin contact:

Not irritating or sensitising to skin.

Active Ingredients:

Tests on glyphosate showed that it did not cause any mutagenic, carcinogenic, teratogenic or adverse reproductive effects. It is not neutotoxic and does not inhibit cholinesterase.

12. ECOLOGICAL INFORMATION

Assessment : Toxic to aquatic organisms.

Active ingredient : Tests in a variety of mammalian/avian/aquatic species
BCF (Bioaccumulation factor) have shown that glyphosate does not bioaccumulate.

13. DISPOSAL CONSIDERATIONS**Product:**

Small quantities: Low environmental hazard. Bury only in approved landfill.

Large quantities: Send to special chemical waste disposal facility or burn only in special, controlled high temperature incinerator. As far as possible recover and store any remaining non-contaminated product in original packaging.

Container:

Triple rinse empty containers. Pour rinse water into spray tank. Empty containers to be disposed of as hazardous waste. Do not re-use containers. Do not contaminate waterways,

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ponds or ditches with waste product or container. All local and national regulations should be followed.

14. TRANSPORT INFORMATION

UN Number: 3082
Packing Group: III
Packing Class: 9

Environmentally hazardous substance

15. REGULATORY INFORMATION

Hazard Symbol : **N, Dangerous for the environment**

Risk Phrases : **R51 Toxic to aquatic organisms**
R53 May cause long term adverse effects in the aquatic environment

Safety Phrases:

- S2 Keep out of reach of children
- S13 Keep away from food, drink and animal feeding stuffs
- S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
- S35 This material and its container must be disposed of in a safe way
- S57 Use appropriate containment to avoid environmental contamination

16. OTHER INFORMATION

Date of MSDS Review : 18.03.10 Supersedes MSDS Dated : 16.10.09

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