

# MATERIAL SAFETY DATA SHEET

## 1. PRODUCT AND COMPANY IDENTIFICATION

### GLYPHOSATE 540G/L SL

REGISTRATION HOLDER: Agrivi South Africa (PTY) LTD, PO BOX 2280, KROONSTAD, 9500, SOUTH AFRICA Tel  
No +27 083 564 8357

CHEMICAL NAME: *N*-(phosphonomethyl)glycine potassium salt  
CAS NUMBER: 70901-12-1  
MOLECULAR FORMULA:  $C_3H_7KNO_5P$   
MOLECULAR WEIGHT: 207.2  
USE: Herbicide

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

|  |          |
|--|----------|
| Glyphosate (present as the potassium salt) | 540 g/L  |
| Potassium Hydroxide                        | 120 g/l  |
| APG  | 140      |
| Water                                      | Up to 1L |

## 3. HAZARDS IDENTIFICATION



SKIN: May cause allergenic skin reaction and severe skin burns

EYE CONTACT: May cause serious eye damage

SKIN: May cause serious skin burns.

INGESTION: Maybe harmful if swallowed

INHALATION: Minimally toxic by inhalation.

## 4. FIRST - AID MEASURES

### INHALATION:

Remove source of contamination, or move victim to fresh air. Keep affected person warm and at rest. Treat symptomatically and supportively.

Administration of oxygen should be performed by qualified personnel. Get medical attention if effects persist.

### SKIN CONTACT:

Move the victim to fresh air and remove all contaminated clothing, shoes and leather goods. Gently wipe off excess chemical. Wash affected skin areas gently and thoroughly with water and non-abrasive soap. Do not rub the skin. If irritation persists, seek medical advice.

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## EYE CONTACT:

Immediately flush the eyes with clean, gently flowing lukewarm water or saline solution for 15 - 20 minutes, holding the eyelid(s) open. If irritation persists, seek medical advice.

## INGESTION:

Have victim rinse mouth thoroughly with water. Do not induce vomiting. Seek medical advice immediately showing container and label.

## ADVICE TO DOCTOR:

There is no specific antidote. Treat symptomatically and supportively as and when required. Remove by gastric lavage and catharsis, but not if victim is unconscious. Give oxygen if respiration is depressed.

## 5. FIRE FIGHTING MEASURES

### EXTINGUISHING AGENTS:

Extinguish fires with carbon dioxide, dry powder, or alcohol-resistant foam. Water spray can be used for cooling of unaffected stock, but avoid water

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coming in contact with the product. Use as little water as possible. Use spray or fog. Solid stream may cause spreading. Contain water used for fire fighting for later disposal.

## HAZARDOUS PRODUCTS OF COMBUSTION:

Carbon monoxide (CO), phosphorous oxides (PxOy) and nitrogen oxides (NOx)

## FIRE FIGHTING:

Remove spectators from surrounding area. Remove container from fire area if possible. Contain fire control agents for later disposal. Use a recommended extinguishing agent for the type of surrounding fire. Avoid inhaling hazardous vapours and fumes from burning materials. Keep upwind.

## PERSONAL PROTECTIVE EQUIPMENT:

Fire may produce irritating or poisonous vapours (toxic fumes of carbon monoxide, phosphorous oxides and nitrogen oxides), mists or other products of combustion. Fire fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus.

## 6. ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS:

Avoid contact with skin and eyes. Do not breathe in spray or fumes. For personal protection see Section 8.

### ENVIRONMENTAL PRECAUTIONS:

Do not allow entering drains or watercourses. Spillage or uncontrolled discharges into water courses (or public waters) to be reported immediately to the Police and to the Department of Water/Environmental Affairs.

### OCCUPATIONAL SPILL:

Remove all sources of flames and sparks. For small liquid spills, soak up with lime, damp earth or sand, or other noncombustible absorbent material and place into containers for later disposal. For large liquid spills, contain the liquid for later disposal. In situations where product comes in contact with water, contain contaminated water for later disposal. Do not flush spilled material into drains. Keep spectators away.

## 7. HANDLING AND STORAGE

### HANDLING:

Avoid contact with eyes, prolonged contact with skin, and inhalation of spray and fumes. Handle product with caution. Use with adequate ventilation. Wash hands before eating, drinking, chewing gum, smoking or using the toilet. Remove clothing immediately if the herbicide gets inside. Then wash skin thoroughly using a nonabrasive soap and put on clean clothing. Operators should change and wash clothing after use. Do not apply directly to areas where surface water is present, or to intertidal areas below the mean high water mark. Water used to clean equipment must be disposed of correctly to avoid contamination.

### STORAGE:

Store in its original, labelled and closed container in dry, cool, shaded, well-ventilated area, away from heat, sparks and other sources of ignition. Do not store with other pesticides, fertilizer, seeds, foodstuffs and water supplies. Store away from incompatible substances. Product is incompatible with galvanized steel or unlined mild steel. Keep out of reach of unauthorized persons, children and animals. Local regulations should be complied with.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### PERSONAL PROTECTIVE EQUIPMENT:

If engineering controls and work practices are not effective in controlling exposure to this material, then wear suitable personal protective equipment including approved respiratory protection.

### RESPIRATOR:

It is usually safe to use the product without a mask or respirator. If the product is used in dusty or confined conditions, a mask or respirator suitable for protection from dusts and mists of pesticides is adequate. Limitations of respirator use specified by the approving agency and the manufacturer must be observed.

### CLOTHING:

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Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with this substance.

## GLOVES:

Employee must wear appropriate synthetic protective gloves to prevent contact with this substance.

## EYE PROTECTION:

Wear safety goggles or face shield.

## EMERGENCY EYEWASH:

Where there is any possibility that an employee's eyes may be exposed to this substance the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|               |               |
|---------------|---------------|
| APPEARANCE:   | Yellow liquid |
| DENSITY:      | 1.37 g/ml     |
| FLAMMABILITY: | Not flammable |
| EXPLOSIVITY:  | Not explosive |
| pH RANGE:     | 4.4-5.0       |
| SOLUBILITY:   | Miscible.     |

## 10. STABILITY AND REACTIVITY

### STABILITY:

Stable under normal temperatures and pressures. Glyphosate reacts strongly (possibly violent exothermic reaction) with strong alkalis. Photodecomposition is negligible. Is stable to light and also stable up to 60 °C. Product is unlikely to spontaneously polymerise or decompose. Decompose only after heating to dryness followed by further heating. Glyphosate may be photolabile in natural waters, with calcium or other metal ions acting as catalysts for the process.

DILUTION STABILITY: Stable in aqueous solutions at 20 °C.

### STORAGE STABILITY:

Stable for 2 years under normal warehouse conditions. Store at temperatures below 50 °C and above -15 °C. Stable to light. Partial crystallization may occur on prolonged storage below -15 °C.

### INCOMPATIBILITY:

Product is relatively stable in neutral, weakly acidic and weakly alkaline media, but reacts strongly (and possibly violently) with strong alkalis. Mixing with other products may reduce the activity of glyphosate. Incompatible with galvanized steel and unlined mild steel materials for storage.

### THERMAL DECOMPOSITION:

Toxic oxides of carbon, nitrogen and phosphorus are released when the product decomposes on heating.

## 11. TOXICOLOGICAL INFORMATION

|                                       |                                 |
|---------------------------------------|---------------------------------|
| ACUTE ORAL LD <sub>50</sub> (rats):   | >5000 mg/kg (calculated)        |
| ACUTE DERMAL LD <sub>50</sub> (rats): | >5000 mg/kg (calculated)        |
| INHALATION LC <sub>50</sub> :         | >5.0 mg/l/hour (potassium salt) |
| EYES IRRITATION (Rabbit):             | Moderately irritating.          |
| SKIN IRRITATION (Rabbit):             | Not irritating                  |
| SKIN SENSITISATION:                   | Not sensitizing to skin         |

## 12. ECOLOGICAL INFORMATION

|                   |   |
|-------------------|---|
| TOXICITY TO BIRD: | Bobwhite quail LD <sub>50</sub> : > 2241 mg a.e./kg |
| TOXICITY TO FISH: | Trout LC <sub>50</sub> (96 hours): > 1227 mg a.e./l |

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## 13. DISPOSAL CONSIDERATIONS

### PESTICIDE DISPOSAL:

Open dumping or burning of this pesticide is prohibited waste resulting from the use of this product that cannot be reused or reprocessed. Never pour untreated waste or surplus products into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers. Comply with local legislation applying to waste disposal.

### CONTAINER DISPOSAL:

Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is destroyed.

## 14. TRANSPORT INFORMATION

UN NUMBER: 3082

CLASS: 9

PACKING GROUP: III

SHIPPING NAME: Environmentally hazardous substance, liquid, N.O.S.

## 15. OTHER INFORMATION

The data given here is based on current knowledge and experience. The purpose of this safety data sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.