

# MATERIAL SAFETY DATA SHEET

## PROPER 480 SL (GLYPHOSATE 48% SL)

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name** : **Glyphosate 48% SL**  
**Product use** : Herbicide  
**Chemical name** : Not applicable  
**Synonyms** : None  
**Company** : **ANGLO GULF LIMITED**  
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### 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	48
Other ingredients		52

The specific chemical identity is being withheld because it is trade secret information of Anglo Gulf limited International.

### 3. HAZARDS IDENTIFICATION

#### Emergency overview

**Appearance and odour (colour/form/odour):** Amber - Brown / Liquid, (viscous) / Slight

PRECAUTION!

MAY CAUSE EYE IRRITATION

MAY BE HARMFUL IF SWALLOWED

#### Potential health effects

#### Likely routes of exposure

Skin contact, eye contact, inhalation.

**Eye contact, short term**

May cause temporary eye irritation.

**Skin contact, short term**

Not expected to produce significant adverse effects when recommended use instructions are followed.

**Inhalation, short term**

Glyphosate 48% SL

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**

<b>Eye contact</b> symptoms,	: Immediately flush with plenty of water. If there are persistent symptoms, obtain medical advice.
<b>Skin contact</b>	: Take off contaminated clothing, wristwatch, and jewellery. Wash affected skin with plenty of water. Wash clothes before re-use. If there are persistent symptoms, obtain medical advice.
<b>Inhalation</b>	: Remove to fresh air.
<b>Ingestion</b>	: Immediately offer water to drink. Do NOT induce vomiting unless directed by medical personnel. If symptoms occur, get medical attention.
<b>Advice to doctors</b>	: This product is not an inhibitor of cholinesterase.
<b>Antidote</b>	: Treatment with atropine and oximes is not indicated.

**5. FIRE-FIGHTING MEASURES**

**Flash point** : None.

**Extinguishing media** : Recommended: Water, foam, dry chemical, carbon dioxide (CO<sub>2</sub>)

**Unusual fire and explosion hazards**: Minimise use of water to prevent environmental contamination. Environmental precautions: see section 6.

**Hazardous products of combustion** : Carbon monoxide (CO), phosphorus oxides (P<sub>x</sub>O<sub>y</sub>), nitrogen oxides (NO<sub>x</sub>)

**Firefighting 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:

Glyphosate 48% SL

Low environmental hazard.

**LARGE QUANTITIES:**

Minimise spread.

Keep out of drains, sewers, ditches and waterways.

**Methods for cleaning up**

**SMALL QUANTITIES:**

Flush spill area with water.

**LARGE QUANTITIES:**

Absorb in earth, sand or absorbent material.

Collect in containers for disposal.

Dig up heavily contaminated soil.

Refer to section 7 for types of containers.

Flush residues with small quantities of water.

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:**

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.

Refer to section 13 for disposal of rinse water.

Emptied containers retain vapour and product residue.

**FOLLOW LABELED WARNINGS EVEN AFTER CONTAINER IS EMPTIED.**

**Storage:**

Minimum storage temperature: -15 °C

Maximum storage temperature: 50 °C

Compatible materials for storage: stainless steel, aluminium, fibreglass, plastic, glass lining

Incompatible materials for storage: galvanised steel, unlined mild steel, see section 10.

Keep out of reach of children.

Keep away from food, drink and animal feed.

Keep only in the original container.

Partial crystallization may occur on prolonged storage below the minimum storage temperature.

If frozen, place in warm room and shake frequently to put back into solution.

Minimum shelf life: 5 years.

## 8. EXPOSURE CONTROLS/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**

Have eye wash facilities immediately available at locations where eye contact can occur.

#### **Eye protection**

If there is potential for contact:

Glyphosate 48% SL Wear chemical goggles.

#### **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.

<b>Physical state:</b>	Clear transparent liquid free from suspended particles
<b>Colour</b>	Golden yellow to amber
<b>Odour</b>	Mild halide odour
<b>Density</b>	1.16g/ml +/- 0.05 g/ml
<b>Flammability</b>	Non Flammable
<b>Flash Point</b>	NA, water base product.
<b>Compatibility with other pesticides</b>	Well compatible with other herbicides except highly oxidizing material. But mixing with other products may reduce the activity of Glyphosate.
<b>pH</b>	4.0 to 7.0
<b>pH of 1% aqueous dilution</b>	4.77 (1 % solution).
<b>Oxidizing properties</b>	Not oxidizing
<b>Water content</b>	Water base product
<b>Viscosity</b>	2 to 25cSt
<b>Shelf life</b>	Two years under normal storage condition

## **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 galvanised 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.

**Similar formulation****Acute oral toxicity**

**Rat, LD50 (limit test)** : > 5,000 mg/kg body weight  
**Other effects** : breathing difficulty, decreased activity, soft stools  
**Practically** : non-toxic.  
**FIFRA category** :IV.

**Acute dermal toxicity**

**Rat, LD50 (limit test)** : > 5,000 mg/kg body weight  
**Target organs/systems** : none  
**Glyphosate 48% SL Version** : 1.2 Effective date: 08/28/2002  
**Other effects** : none  
**Practically** : non-toxic.  
**FIFRA category** : IV.

**Skin irritation****Rabbit, 6 animals, OECD 404 test:**

**Days to heal** : 1  
**Primary Irritation Index (PII)** : 0.4/8.0  
**Other effects** : none  
**Essentially** : non irritating.  
**FIFRA category** : IV.

**Eye irritation****Rabbit, 6 animals, OECD 405 test:**

**Days to heal** : 10  
**Moderate** : irritation.  
**FIFRA category** :II.

**Acute inhalation toxicity**

**Rat, LC50, 4 hours, aerosol** : 4.86 mg/L  
**Target organs/systems** : none  
**Other effects** : breathing difficulty, decreased activity, local effects  
**Practically** : non-toxic.

**FIFRA category** :IV.

**Skin sensitization Guinea pig, Buehler test:**

**Positive incidence** : 0 %

#### **EXPERIENCE WITH HUMAN EXPOSURE**

**Ingestion, short term, case report(s):**

**Gastro-intestinal effects** : irritation, nausea/vomiting, diarrhea

**Ingestion, short term,**

**Respiratory effects** : increased fluid in lungs (lung/pulmonary oedema)

**Cardiovascular effects** : decreased blood pressure (hypotension)

**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

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**Tumours** : none

**Target organs/systems** : eyes

**Other effects** : decrease of body weight gain, 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****Bluegill sunfish (*Lepomis macrochirus*):****Acute toxicity, 96 hours, flowthrough, LC50:** 140 mg/L Moderately toxic.**Rainbow trout (*Oncorhynchus mykiss*):****Acute toxicity, 96 hours, flowthrough, LC50:** 8.2 mg/L Moderately toxic.**Aquatic toxicity, invertebrates****Water flea (*Daphnia magna*):****Acute toxicity, 48 hours, static, EC50:** 780 mg/L Slightly toxic.**Aquatic toxicity, algae/aquatic plants**

**Green algae (*Selenastrum capricornutum*) :**

**Acute toxicity, 96 hours, static, EC50:** 485 mg/L Moderately toxic.

**Duckweed (*Lemna minor*):**

**Acute toxicity, 7 days, static, EC50** : > 6 mg/L

**Avian toxicity****Bobwhite quail (*Colinus virginianus*):**

**Dietary toxicity, 5 days, LC50:** > 4640 mg/kg diet Practically non-toxic.

**Mallard duck (*Anas platyrhynchos*):**

**Dietary toxicity, 5 days, LC50:** > 4640 mg/kg diet

**Glyphosate 48% SL Version** : 1.2 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** : > 5,000 mg/kg dry soil Practically non-toxic.

**N-(phosphonomethyl)glycine; {glyphosate }**

**Bioaccumulation****Bluegill sunfish (*Lepomis macrochirus*):**

**Whole fish: BCF** : < 1 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**

Excess product may be disposed of according to label instructions. Keep out of drains, sewers, ditches and water ways. Recycle if appropriate facilities/equipment available. Burn in proper incinerator. Follow all local/regional/national/international regulations.

**Container**

See the individual container label for disposal information. Emptied containers retain vapour and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.



Empty packaging completely. Triple or pressure rinse empty containers. Rinsate may be disposed of by agricultural use according to label instructions. Do NOT contaminate water when disposing of rinse waters. Recycle if appropriate facilities/equipment available. Ensure packaging cannot be reused. 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**

Glyphosate 48% SL

Effective date: 08/28/2002

#### **16. OTHER INFORMATION**

The information given here is not necessarily exhaustive but is representative of relevant, reliable data. Follow all local/regional/national/international regulations.