



## Material Safety Data Sheet (MSDS)

### *Acigate 48% SL*

#### IDENTIFICATION OF THE SUPPLIER:

**AGRO CHEMICALS INDUSTRIES LTD**  
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#### PRODUCT IDENTIFICATION:

**Common Name:** Glyphosate  
**Trade Name:** Acigate 48% SL  
**Chemical Name:** N-( phosphonomethyl ) glycine  
**Chemical Formula:** C<sub>6</sub>H<sub>17</sub>N<sub>2</sub>O<sub>5</sub>P  
**Moecular Weight:** 228.22

#### PRODUCT COMPOSITION:

<i>Active Ingredient:</i>	CAS #	% w/v
Glyphosate IPA salts	[38641-94-0]	48% w/v
<i>Inert ingredient:</i>		
Solvent		Up to 1 liter.





## HAZARDS IDENTIFICATION:

**Main hazard:** Dangerous for the environment.

**Toxicity class:**

WHO Table 5; EPA III.

A low toxicity herbicide.

**Flammability:** Not flammable

**Biological hazards:**

Dangerous for the environment.

**Eye contact:**

May cause mild eye irritation.

**Skin contact:**

No skin irritation.

**Ingestion:**

Minimally toxic.

**Inhalation:**

Minimally toxic by inhalation.

## FIRE-FIGHTING MEASURES: -

**Flash Point:**

Not applicable (when tested the water vapors extinguished the flame)

**Flammable Limits**

LFL: Not determined

UFL: Not determined

**Extinguishing Media:**

Foam, CO<sub>2</sub>, or Dry chemical

**Fire and Explosion Hazards:**

Foam fire extinguishing system is preferred because uncontrolled water can spread possible contamination. Toxic irritating gases may be formed under fire conditions.

**Fire-Fighting Equipment:**

Use positive-pressure, self-contained breathing apparatus and full protective equipment





## FIRST-AID MEASURES:

Obtain the MSDS, and if available, the product container or label with you when calling a poison control center or doctor, or going for treatment.

### **Eye:**

Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist.

### **Skin:**

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

### **Ingestion:**

High oral doses can cause central nervous system effects in animals. Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Never give anything by mouth to an unconscious person.

### **Inhalation:**

Prolonged excessive exposure may cause adverse effects. May cause respiratory irritation and central nervous system depression.

Move person to fresh air. If not breathing, call an ambulance, and then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice. If breathing is difficult, oxygen should be administered by qualified personnel.

**Advice to physician:** There is no specific antidote

## ACCIDENTAL RELEASE:

### **Personal precautions:**

Avoid contact with skin and eyes. Do not inhale fumes. For personal protection

### **Environmental precautions:**

Do not allow to enter drains or water courses. When the product contaminates public waters, inform appropriate authorities in accordance with local regulations.

### **Small spills:**

For small liquid spills, soak up with sand or other suitable noncombustible absorbent material, such as sawdust, and place into containers for subsequent disposal.





### **Large spills:**

For large spills, contain liquid far ahead of spill. Contain spillage and contaminated water for subsequent disposal. Do not flush spilled material into drains. Keep spectators away.

## **PERSONAL PROTECTION/SAFETY:**

<b>Respiratory</b>	: Approved respiration
<b>Eye and Face</b>	: Safety goggles or face shield.
<b>Hands</b>	: Gloves.
<b>Body</b>	: Boots and apron and hat.
<b>Ventilation</b>	: provide local exhaust.
<b>Industrial hygiene</b>	: Safety shower and eye wash should be provided at work place. Do not eat, drink or smoke while Working. Wash hands before Meals and after work with soap.

## **HANDLING AND STORAGE:**

### **Handling:**

Harmful by inhalation or if swallowed. Avoid contact with eyes, prolonged contact with skin, and inhalation of spray and fumes. 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 non-abrasive soap and pu on clean clothing. 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 labeled container in shaded, well-ventilated area, away from heat.

- Do not store in galvanized steel or unlined steel containers.
- Not to be stored next to foodstuffs and water supplies.-
- Keep out of reach of children and animals.
- Local regulations should be complied with





## STABILITY AND REACTIVITY:

### -Storage stability:

Stable for 2 years under normal warehouse conditions.

### -Incompatibility:

Mixing with other products may reduce the activity of glyphosate.

### -Hazardous decomposition products:

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

## PHYSICO-CHEMICAL DATA(product) :

**State:** Homogeneous liquid.

**Color:** Yellow.

**Odour:** Characteristic odor.

**Density:** 1.15 g/l (25C)

**PH:** 4.77 (1 % solution).

### Solubility in water:

In water 11.6 g/l (25°C) . Insoluble in common organic solvents e.g acetone, ethanol, and Xylene

**Flash Point:** No flash point because the formula based water

## TOXICITY INFORMATION:

### ACUTE TOXICITY:

**Oral LD 50 (rat,)** > 5000 mg/kg

**Dermal LD 50 (rat)** > 5000 mg/kg

**Inhalation LC 50 (rat)** Minimally toxic by inhalation

**Eye Irritation (rabbit)** – May cause mild eye irritation.

**Skin Irritation (rabbit)** – No skin irritation.

## ECOLOGICAL INFORMATION: -

### -Birds:

Low toxicity to birds.

Acute oral LD50: > 2 000 mg/kg (bobwhite quail).





**-Fish:**

Hazardous to fish.

LC50 (96 hr): 35.9 mg/l (rainbow trout)

**-Bees:**

Non-toxic to bees.

Oral LD50 (72 h): > 180 µg formulation/bee.

Dermal LD50 (72 h): > 200 µg formulation/bee.

**-Daphnia:**

Very low toxicity to *Daphnia magna*.

EC50 (48 h): > 71.8 mg/l.

**-Algae:**

Toxic to *Selenastrum capricornutum*.

EbC50 (72 h): 1.4 mg/l.

ErC50 (72 h): 1.8 mg/l.

**Earthworms:**

Not toxic to earthworms.

LC50 (14 d): > 1000 mg/kg of soil.

**Degradability:**

Microbial degradation is the major cause of loss from soil, with liberation of carbon dioxide. The principal metabolite is aminomethylphosphonic acid. In soil the half life of the product is less than 60 days.

**Mobility:**

Bio-concentration potential is low (BCF is <100 or Log Pow <3).

The product is practically immobile and is unlikely to leach.

**Accumulation:**

The product shows little or no tendency to bioaccumulate and poses no long term threat to wildlife.

**Disposal Considerations:**

**Pesticide disposal:**

Waste resulting from the use of this product that cannot be reused or reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable local procedures. Hydrolysis under alkaline conditions is a suitable method to dispose of small quantities of the product. After hydrolysis, dilute and dispose of in pits or landfill. Comply with any local legislation applying to waste disposal.

**Package product wastes:**

Emptied containers retain vapour and product residues.





Observe all labeled safeguards until container is cleaned, reconditioned or destroyed. Combustible containers should be disposed of in pesticide incinerators. Non-combustible containers must first be triple-rinsed with water, punctured and recycled or disposed of.

### **Transport Information:**

**UN NUMBER** 3082

**ADR/RID:**

Shipping name: Environmentally hazardous substance, liquid, n.o.s. (Glyphosate 480 g/l ).

Substance ID no.: 3082

Hazard ID no.: 90

Label: 9

Item no.: 11 0(c)

**IMDG/IMO:**

Packaging group: III

Label of class: 9

Shipping name: Environmentally hazardous substance, liquid, n.o.s. (Glyphosate 480 g/l).

**ICAO/IATA:**

Proper Shipping name: Environmentally hazardous substance, liquid, n.o.s (Glyphosate 480 g/l).

Class: 9

Hazard Label: Miscellaneous.

Packaging group: III

Passenger Aircraft: Y914 (max 30 kg)

914 (No Limit)

Cargo Aircraft: 914 (No Limit)

**Tremcard no:** 90GM6-III

