



# SUNFARM AGROCHEMICALS LTD

ADD.: XIAOMIAO TOWN, SHUSHAN DISTRICT, HEFEI, ANHUI, CHINA  
WWW.SUNFARMCHEM.COM SUNFARMAGRO@YAHOO.COM +86-15986675013

## Material Safety Data Sheet

(In accordance with 2001/58/EC)

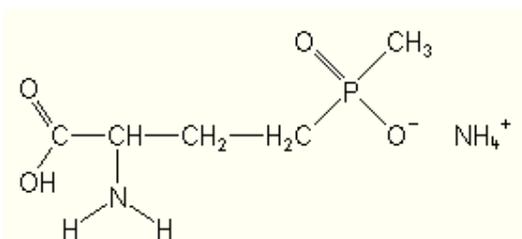
### SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name: **GLUFOSINATE-AMMONIUM 95%**

CAS No.: **77182-82-2**

Empirical formula: **C<sub>5</sub>H<sub>15</sub>N<sub>2</sub>O<sub>4</sub>P**

Structural formula:



Product use: **HERBICIDE**

Chemical Group: **GLYCINE DERIVATIVE PHOSPHINIC ACID**

Chemical Formulation: **TECHNICAL POWDER**

Supplier: **SUNFARM AGROCHEMICALS LTD.**

### SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

Composition	Content (%)	CAS number
GLUFOSINATE-AMMONIUM	95%	77182-82-2

### SECTION 3: HAZARDS IDENTIFICATION

**Hazardous Substance, non-dangerous goods**

Not "dangerous goods" for transport by road or rail

**Ingestion:** Harmful if swallowed.

**Skin irritation:** Non-irritating to skin.

**Eye irritation:** Non-irritating to eyes.

**Inhalation:** May cause irritation.

### SECTION 4: FIRST AID MEASURES

**Inhalation:** Move to fresh air. Keep patient warm and at rest, if symptoms persist, call a physician.

**Skin contact:** Take off contaminated clothing and shoes immediately. Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

**Eye contact:** Wash off immediately with plenty of water for at least 15 minutes.

Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.

**Ingestion:** Do NOT induce vomiting. Keep at rest. Rinse mouth. Call a physician or poison control center immediately.

### Notes to physician

**Symptoms:** Vomiting, Diarrhoea, Abdominal pain, Tremors, Hypotension, muscular weakness, Unconsciousness, Coma, Convulsions, Respiratory failure, Nausea, Tachycardia



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**Symptoms:** Symptoms may be delayed.

**Treatment:** Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.

## **SECTION 5: FIRE FIGHTING MEASURES**

### **Suitable Extinguishing media:**

Water Spray; Foam; Dry Powder; Carbon dioxide

### **Hazards from combustion products:**

In the event of fire the following may be released:

Carbon monoxide (CO)

Carbon dioxide (CO<sub>2</sub>)

Nitrogen oxides (NO<sub>x</sub>)

Oxides of phosphorus

### **Precautions for fire-fighting:**

In the event of fire, wear self-contained breathing apparatus.

Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat.

Whenever possible, contain fire-fighting water by diking area with sand or earth.

Do not allow run-off from fire fighting to enter drains or water courses.

**Hazchem Code:** not applicable

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Personal precautions:** Use personal protective equipment

### **Environmental precautions:**

Do not allow to get into surface water, drains and ground water.

If the product contaminates rivers and lakes or drains inform respective authorities.

### **Methods for cleaning up:**

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Clean contaminated floors and objects thoroughly, observing environmental regulations.

Keep in suitable, closed containers for disposal.

## **SECTION 7: HANDLING AND STORAGE**

### **Handling**

#### **Hygiene measures:**

When using, do not eat, drink or smoke.

Handle in accordance with good industrial hygiene and safety practice.

Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.

Remove soiled clothing immediately and clean thoroughly before using again.

#### **Storage:**

##### **Requirements for storage areas and containers**

Keep out of the reach of children.

Keep containers tightly closed in a dry, cool and well-ventilated place.



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Keep away from direct sunlight.

Protect from freezing.

## Advice on common storage

Keep away from food, drink and animal feedingstuffs.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Personal protective equipment - End user

General advice: Eye wash facility and safety shower should be available.

Respiratory protection: Use respiratory protection for organic vapours.

Hand protection: Elbow-length PVC or nitrile gloves

Eye protection: Face-shield or goggles

Skin and body protection: Cotton overall buttoned to the neck and wrist

Washable hat

### Engineering Controls

Advice on safe handling

Provide for appropriate exhaust ventilation and dust collection at machinery.

## SECTION 9: PHYSICAL PROPERTIES

### Appearance

Form: Liquid

Color: Blue to blue green

Odour: Slight odor

### Safety data

Ph: 5.9-7.9 at 100% (23°C)

Flash Point: 60°C

Ignition temperature: 440°C

Density: 1.11g/cm<sup>3</sup> at 20°C

Solubility: Water Soluble

**Stability:** Stable for at least two years under normal storage and usage conditions

## SECTION 10: STABILITY AND REACTIVITY

Chemical stability: Stable at normal temperatures.

Hazardous polymerization: Will not occur.

Conditions to avoid: Heat, Flames and sparks.

Material to avoid: Strong Oxidizing agents, acids, Bases, Alkali metals

### Hazardous decomposition

products: Thermal decomposition can lead to release of:

Ammonia; Oxides of Carbon; Nitrogen Oxides

Oxides of phosphorus; Sulphur oxides

## SECTION 11: TOXICOLOGICAL INFORMATION

### Potential Health Effects

Inhalation Harmful if inhaled.



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Skin	Harmful if absorbed through skin. Irritating to skin.
Eye	Causes eye irritation.
Ingestion	Harmful if swallowed.
Acute oral	toxicity LD50 (rat) 1,910 mg/kg
Acute inhalation	toxicity LC50 (rat) 3.22 mg/l ; Exposure time: 4 h
Acute dermal	toxicity LD50 (rat) 1,380 mg/kg
Skin irritation	Slight irritation (rabbit)
Eye irritation	Moderate eye irritation. (rabbit)
Sensitisation	Non-sensitizing. (guinea pig)
Chronic toxicity	Glufosinate-ammonium caused neurobehavioral effects and/or neuropathological changes in animal studies. Glufosinateammonium was well tolerated in rats

## SECTION 12: ECOLOGICAL INFORMATION

### Ecotoxicity effects

Toxicity to fish:	LC50 (Oncorhynchus mykiss (rainbow trout)) 34 mg/l
Exposure time:	96 h
	Test conducted with a similar formulation.
Toxicity to aquatic: Invertebrates:	EC50 (Water flea (Daphnia magna)) 26.8 Exposure time: 48 h
	Test conducted with a similar formulation.
Toxicity to aquatic plants:	(Desmodemus subspicatus) 36 mg/l Exposure time: 72 h
	Test conducted with a similar formulation.
Toxicity to other organisms	LC50 (Coturnix japonica (Japanese quail)) > 5,000 mg/kg Exposure time: 8 d
	The value mentioned relates to the active ingredient glufosinateammonium.
Biodegradability	Readily biodegradable. The value mentioned relates to the active ingredient glufosinateammonium.
Stability in soil	no data available
Bioaccumulation	The ecological data given are those of the active ingredient. Does not bioaccumulate.
Additional Environmental info:	no data available

## SECTION 13: DISPOSAL CONSIDERATIONS

See the individual container label for disposal information.  
Emptied packages retain product residue and dust.  
Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.  
Empty packaging completely stored for collection by approved waste disposal service.  
Do not re-use containers.



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Recycle if appropriate facilities/equipment available. Bury in approved landfill.

Follow all local/regional/national/international regulations.

## SECTION 14: TRANSPORT INFORMATION

**According to national and international transport regulations not classified as dangerous goods**

UN Number: not applicable

## SECTION 15: REGULATORY INFORMATION

Hazardous classification	Hazardous
R-phrases(s)	R36 - Irritating to eyes. R21 - Harmful in contact with skin. R48/20/22 - Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed. R60 - May impair fertility. R63 - Possible risk of harm to the unborn child.
S-phrases(s)	See sections 4, 5, 6, 7, 8, 10, 12, 13.
ADG Classification	Not "dangerous goods" for transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

## SECTION 16: OTHER INFORMATION

This MSDS summarizes best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request. ----End of MSDS

For and on behalf of  
SUNFARM AGROCHEMICALS LTD.