Material Safety Data Sheet

GLYPHOSATE IPA 62% SL

1. Chemical Product and Company Identification

Product Name: Glyphosate IPA 62% SL
Company Identification: Shanghai Tenglong Agrochem Co., Ltd.
Tel: 0086-21-5506 3225
Fax: 0086-21-5506 3699

2. Composition, Information on Ingredients

COMPONENT	CAS No.	% BY W/W
Glyphosate isopropylamine salt	38641-94-0	62%
(Equal to 570g/l glyphosate acid)	1071-83-6	
Water	7732-18-5	38%

3. Hazards Identification

Likely routes of exposure
Skin contact, eye contact, and inhalation
Eye contact, short term
Not expected to produce significant adverse effects when recommended use instructions are followed.
Skin contact, short term
Not expected to produce significant adverse effects when recommended use instructions are followed.
Inhalation, short term
Not expected to produce significant adverse effects when recommended use instructions are followed.

4. First Aid Measures

General advice: Have the product container, label or Material Safety Data Sheet with you when calling the Sinochem Shanghai cop. emergency number, a Poison Control Centre or physician, or going for treatment.
Eye contact
Immediately flush with plenty of water.
Continue for at least 15 minutes.
If easy to do, remove contact lenses.
If there are persistent symptoms, obtain medical advice.
Skin contact
Immediately wash affected skin with plenty of water. Take off contaminated clothing, wristwatch, and jewelry. Wash clothes before re-use.
Inhalation
Remove to fresh air.

Ingestion
Immediately offer water to drink.
Never give anything by mouth to an unconscious person.
Do NOT induce vomiting unless directed by medical personnel. If symptoms occur, get medical attention.
Medical advice: There is no specific antidote available. Treat symptomatically.

5. Fire Fighting Measures

Flash point
none
Extinguishing media
Recommended: Water, foam, dry chemical, carbon dioxide (CO2)
Unusual fire and explosion hazards
None.
Environmental precautions: see section 6.
Hazardous products of combustion
Carbon monoxide (CO), phosphorus oxides (PxOy), nitrogen oxides (NOx)
Fire fighting 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:
Low environmental hazard.
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LARGE QUANTITIES:
Minimise spread.
Keep out of drains, sewers, ditches and water ways.
Notify authorities.
Methods for cleaning up
SMALL QUANTITIES:
Flush spill area with water.
LARGE QUANTITIES:
Absorb in earth, sand or absorbent material.
Dig up heavily contaminated soil.
Collect in containers for disposal.
Refer to section 7 for types of containers.
Flush residues with small quantities of water.
Minimise use of water to prevent environmental contamination.

7. Handling and Storage

Handling

Avoid contact with skin and eyes.
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.

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

glyphosate-isopropylammonium and water , No specific occupational exposure limit has been established.

ENGINEERING MEASURES

No special requirement when used as recommended.

PERSONAL PROTECTIVE EQUIPMENT

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

Form: Liquid.
Color: Light yellow liquid.
pH Value: 4.5–6.8
Boiling Point/Range: > 143 ℃
Flash-Point: N/A
Oxidising Properties: Not oxidising.
Explosive Properties: Not explosive.

Density: 1.206 g/cm3 (20 ℃)
Miscibility with Water: Completely Miscible.
Low Pow: <0.0000(A.I.)

10. Stability and Reactivity

Stability
Stable under normal conditions of handling and storage.
Hazardous decomposition products: Thermal decomposition: Hazardous products of combustion: see section 5.
Materials to avoid/Reactivity
Reacts with galvanized 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 product and components are summarized below.
Acute inhalation toxicity
Rat, LC_{50}, 4 hours, aerosol:
Slightly toxic.
FIFRA category III.
No 4-hr LC50 at the maximum achievable concentration.
Skin sensitization
Guinea pig, 9-induction Buehler test:
Positive incidence: 0 %
Mutagenicity
Micronucleus test(s):
Not mutagenic.
Ames test(s):
Not mutagenic with and without metabolic activation
Isopropylamine salt of glyphosate (62%)
Data obtained on product and components are summarized below.
Acute oral toxicity
Rat, LD50 (limit test): > 5,000 mg/kg body weight
Practically non-toxic.
FIFRA category IV.
No mortality.
Mouse, LD50 (limit test): > 5,000 mg/kg body weight
Practically non-toxic.
FIFRA category IV.
No mortality.
Acute dermal toxicity
Rabbit, LD50 (limit test): > 5,000 mg/kg body weight
Practically non-toxic.
FIFRA category IV.

No mortality.

Skin irritation

Rabbit, 6 animals, Draize test:

Days to heal: 3

Primary Irritation Index (PII): 0.0/8.0

Essentially non irritating.

FIFRA category IV.

Acute inhalation toxicity

Rat, LC50, 4 hours, aerosol: > 4.24 mg/L

Practically non-toxic.

FIFRA category IV.

No mortality. Maximum attainable concentration.

Skin sensitization

Guinea pig, Buehler test:

Positive incidence: 0 %

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

Chronic effects/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

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 components are summarized below.

Isopropylamine salt of glyphosate (62%)

Aquatic toxicity, fish

Bluegill sunfish (Lepomis macrochirus):
Acute toxicity, 96 hours, static, LC50: > 1,000 mg/L
Practically non-toxic.

Rainbow trout (Oncorhynchus mykiss):
Acute toxicity, 96 hours, static, LC50: > 1,000 mg/L
Practically non-toxic.

Aquatic toxicity, invertebrates

Water flea (Daphnia magna):
Acute toxicity, 48 hours, static, EC50: 930 mg/L
Practically non-toxic.

Aquatic toxicity, algae/aquatic plants

Green algae (Scenedesmus subspicatus):
Acute toxicity, 72 hours, static, ErC50 (growth rate): 166 mg/L
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}

Avian toxicity
Bobwhite quail (Colinus virginianus):
Dietary toxicity, 5 days, LC50: > 4,640 mg/kg diet
No more than slightly toxic.
Mallard duck (Anas platyrhynchos):
Dietary toxicity, 5 days, LC50: > 4,640 mg/kg diet
No more than slightly toxic.
Bobwhite quail (Colinus virginianus):
Acute oral toxicity, single dose, LD50: > 3,851 mg/kg body weight
Practically non-toxic.
Arthropod toxicity
Honey bee (Apis mellifera):
Oral, 48 hours, LD50: 100 µg/bee
Honey bee (Apis mellifera):
Contact, 48 hours, LD50: > 100 µg/bee
Practically non-toxic.
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
Not classified as hazardous waste by the Resource, Conservation and Recovery Act (RCRA), 40 CFR 261.
Recycle if appropriate facilities/equipment available.
Burn in special, controlled high temperature incinerator.
Keep out of drains, sewers, ditches and water ways.
Follow all local/regional/national/international regulations.
Consult your attorney or appropriate regulatory officials for information on disposal.
Container
Triple or pressure rinse empty containers.
Pour rinse water into spray tank.
Store for collection by approved waste disposal service.
Dispose of as non hazardous industrial waste.
Do NOT re-use containers.
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

TSCA Inventory: This product is exempted from TSCA because it is solely for FIFRA regulated use.
SARA Hazard Notification/Reporting:
Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370):
Immediate
Section 313 Toxic Chemicals: None
Reportable Quantity (RQ) under U.S. CERCLA: None
RCRA Waste Code: None
State Regulations
Other state regulations may apply. Check individual state requirements.

16. Additional Information

This MSDS summarizes our 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.