

Material Safety Data Sheet

טייפון - Typhoon

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1. IDENTIFICATION OF SUBSTANCE AND COMPANY

Common name: Typhoon

Use: Herbicide

Formulation Type: SL

Manufacturer: Tapazol Chemical works ltd.

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2. COMPOSITION/INFORMATION ON INGREDIENTS

| Name | CAS no. | Quantity (g/l) |
|---|---|------------------------------------|
| Glyphosate in the form of Isopropylamine salt | 368641-94-0 (For Glyphosate:1071-83-6) | 480 (eq. to 360 g/l Glyphosate) |
| Ethoxylated Tallow amines | 61791-26-2 | 500 |

AI Chemical Family: Derivative of Glycine.

3. HAZARDS IDENTIFICATION

Harmful if swallowed or inhaled. May cause skin and eye irritation.

Acute exposure may cause gastro-intestinal irritation, nausea, vomiting, diarrhea, increased fluid in the lungs and decreased blood pressure.

4. FIRST AID MEASURES

Eyes: Flush eyes with large amounts of water for at least 15 minutes. Get medical attention.

Skin: Flush with large amounts of water. Remove grossly contaminated clothing, including shoes, and launder before reuse.

Ingestion: DO NOT induce vomiting. Drink 1-2 glasses of water. Keep at rest. Get prompt medical attention.

Inhalation: Wear proper respiratory protection before rescue. Immediately remove the affected victim to fresh air. Administer artificial respiration if breathing has stopped. Keep at rest. Call for prompt medical attention

Note to physician: No specific antidote, treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash point: >93⁰C (closed cup method).

Extinguishing media: Water spray, foam, dry chemical, carbon dioxide.

Protective equipment: Wear full protective clothing and self-containing breathing apparatus. Equipment should be thoroughly cleaned after use.

Hazardous products of combustion may include: Carbon monoxide, carbon dioxide, phosphorus oxides, nitrogen oxides.

Procedure: Fight fire upwind. Avoid heavy hose streams. Dike area to prevent water runoff.

6. ACCIDENTAL RELEASE MEASURES

Personal protection: Wear personal protective equipment as prescribed in section 8 – "Exposure controls/Personal protection".

Environmental Protection: Prevent the material from entering sewage and water courses.

Procedure: Absorb with material such as sand or sawdust and collect into containers for disposal. Dike area in case of large spills and report it. Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations. Clean the area with water and detergent.

For spills in public area, keep public away and advise local authorities.

Wash clothes, equipment and work area after cleaning.

7. HANDLING AND STORAGE

Storage: Store in tightly closed ORIGINAL container in a cool, dry well-ventilated area out of direct sunlight and out of the reach of children. Do not store with food, feedstuffs, fertilizers and seeds.

Handling: Wear personal protective equipment as prescribed in section 8 – "Exposure controls/Personal protection".

Do not eat, drink or smoke while handling. Do not contaminate drains, sewers and water courses with the material or rinsings water.

Change clothes and wash thoroughly when finishing working with the product.

Wash working clothes in separate from household laundry and do not re-use clothes that are not washed.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Exposure Limits: No limits have been established for any of the product's ingredients.

Engineering controls: If used outside, no engineering controls are required. If not, the use of local exhaust ventilation is recommended.

Eye/ Face protection: Chemical goggles.

Skin/Body protection: Long-sleeved shirt, long pants, shoes plus socks.

Hand protection: Chemical resistant gloves.

Respiratory protection: In the event of an accidental discharge of the material during manufacturer handling which produces a heavy vapor or mist, full face respirator equipped with filter for organic vapor and dust/mist approved for pesticides is recommended. Use cartridges with NIOSH/MSHA approval number TC-14G.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, viscous, amber-colored solution.

Odor: Odorless to slight ammonia-like odor.

pH: 4-7 (1% solution).

Flash point: >93⁰C (closed cup method).

Water solubility: Miscible.

Specific gravity: 1.16 (20⁰C).

10. STABILITY AND REACTIVITY

Chemical stability: Stable under ordinary conditions of use and storage.

Conditions to avoid: Heat, flame, ignition sources. Do not mix, store or apply this product or spray solutions of this product in galvanized or unlined steel (except stainless steel) containers spray tanks. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarettes or other ignition source. This product can react with basic materials to liberate heat in an acid-base reaction.

Hazardous decomposition products: Carbon monoxide, carbon dioxide, phosphorus oxides, nitrogen oxides.

Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:

Oral: LD50 for rat: >5000 mg/kg

Dermal: LD50 for rat: >5000 mg/kg.

Inhalation: LC50 for rat: >2.9 mg/l.

Skin irritation: Slightly irritating.

Eye irritation: May cause irritation, pain, redness and tearing.

Skin sensitization: Non-sensitizing.

Chronic toxicity:

For AI Glyphosate Isopropylamine Salt:

Data from studies with a formulation comprised of 62% isopropylamine salt glyphosate indicate the following:

In repeat dosing studies (6-month), dogs fed this formulation exhibited slight body weight changes.

Following repeated skin exposure (3-week) to this formulation, skin irritation was the primary effect in rabbits.

For Glyphosate:

Following repeated exposure (90-days) to glyphosate in their feed, decreased weight gains were noted at the highest test level in mice, while no treatment-related effects occurred in rats.

Following repeated skin exposure (3 weeks) to glyphosate, slight skin irritation was the primary effect observed in rabbits. No skin allergy was observed in guinea pigs following repeated skin exposure.

There was no evidence of effects on the nervous system, including delayed effects in chickens (repeat oral doses) or cholinesterase inhibition in rats (single oral doses).

Reduced body weight gain and effects on liver tissues were observed with long term (2-year) feeding of glyphosate to mice at high-dose levels.

Reduced body weight gain and changes were observed at the high-dose level in one long-term (2 year) feeding study with rats, while no treatment-related effects occurred in a second study.

No adverse effects were observed in feeding studies with dogs.

Glyphosate did not produce tumors in any of these studies.

Based on the results from the chronic studies, EPA has classified glyphosate in category E (evidence of non-carcinogenicity for humans).

No birth defects were noted in rats and rabbits given glyphosate orally during pregnancy, even at amounts which produced adverse effects on the mothers.

Glyphosate was fed continuously to rats at very high dose levels for 2 successive generations. Toxicity was reported in offspring from the high dose, a level which also produced adverse effects on the mothers. In a 3 generation study conducted at lower dose levels, no effects were seen on the ability of male or female rats to reproduce.

Glyphosate has produced no genetic changes in a variety of standard tests using animals and animal or bacterial cells.

12. ECOLOGICAL INFORMATION

The product is moderately toxic to fish and aquatic organisms and practically non-toxic to birds and bees.

For AI Glyphosate Isopropylamine Salt:

Fish: LC50 for trout and bluegill sunfish: >1000 mg/l, for fetthead minnow: 97 mg/l, for channel catfish: 130 mg/l.

Daphnia: LC50 (48h): 930 mg/l.

Algae: EC50 (72h): 72.9 mg/l.

13. DISPOSAL CONSIDERATIONS

Wastes resulting from the use of this product should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable local procedures.

Emptied container retains vapor and product residue. Do not cut or weld near this container.

Do not reuse container. Puncture and dispose of in an approved disposal site.

14. TRANSPORT INFORMATION

UN no.: Not classified as dangerous goods.

Class: N/A

Packaging group: N/A

15. REGULATORY INFORMATION

R phrases:

R20/22: Harmful by inhalation and if swallowed

R36/38: Irritating to eyes and skin

R52: Harmful to aquatic organisms

S phrases:

S24/25: Avoid contact with skin and eyes

S3/9/49: Keep only in the original container in a cool, well-ventilated place

S29/56: Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point

16. OTHER INFORMATION

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