



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name : Metsulfuron Methyl Technical
CAS No : 74223-64-6
Use : Herbicide
Company Info : M/s HPM Chemicals & Fertilizers Ltd
209-210, Anupam Bhawan, Commercial Complex
Azadpur, Delhi-110033
Telephone : (011)-45071800, 899
Fax : (011)- 27681800
Website : www.hpmindia.com
E-mail : info@hpmindia.com

2. COMPOSITION/INFORMATION ON INGREDIENTS

Composition	Concentration
Glyphosate a.i.	93.00% min.
Other associates impurities	7.00% max

3. HAZARDS IDENTIFICATION OF PREPARATION

Classification of risk of chemical product:

Dangers for the health of the people

Effects of one on acute exposure (short time): Information non-available

Inhalation: May be a mechanical irritant.

Contact with the skin: Repeated dermal contact with the active ingredient may cause skin irritation with itching, burning, redness, swelling or rash..

Contact with the eyes: May cause eye irritation with tearing, pain or blurred vision.

Effects of one on chronic exhibition (long time): Information non-available.

Dangers for the environment: To avoid that the product reaches the water obstacles

Dangers special are of the product: None if it is used suitably.

4. FIRST AID MEASURES

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.



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Eyes : Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.

Ingestion: No specific intervention is indicated as the product is not likely to be hazardous by ingestion. Consult a physician if necessary.

Inhalation: No specific intervention is indicated as the product is not likely to be hazardous by inhalation. Consult a physician if necessary. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

Antidote: None reported.

5. ACCIDENTIAL RELEASE

Clean up spills immediately, using precautions described in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

SMALL SPILL: Absorb spill with inert material such as dry sand, vermiculite or fuller's earth, then place in a chemical waste container. Rinse area with dilute soda ash and place rinsate into chemical waste container.

LARGE SPILL: Same as for small spills; may neutralize with dilute alkaline solutions of soda and ash and place into chemical waste container. Do not allow material to run off into soil, drainage systems, or bodies of water.

Notify and consult with proper regulatory authorities.

6. FIRE-FIGHTING MEASURES

FLASHPOINT(method):None

FIRE AND EXPLOSION HAZARD: Minimize use of water to prevent environmental contamination.

EXTINGUISHING MEDIA: Use carbon dioxide, foam, dry chemical or water spray when fighting fires involving this material.

FIREFIGHTING INSTRUCTIONS: Evacuate area and fight fire from a safe distance.

Approach from upwind to avoid hazardous vapors and decomposition products. Fire exposed containers can build up pressure and should be kept cool with water spray if possible. Explosive vapor could form from ruptured containers. Foam fire extinguishing system is preferred to prevent environmental damage from excessive water run off. If water is used, avoid heavy hose streams. If possible, dike and collect water used to fight fire to prevent minimize run off.

FIREFIGHTING EQUIPMENT: Self-contained breathing apparatus with full face piece. Wear full firefighting turn-out gear (Bunker gear).

HAZARDOUS COMBUSTION PRODUCTS: CO, Phosphorus oxides and Nitrogen



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7. HANDLING AND STORAGE

Handling	:	Use appropriate (impervious) clothing, gloves and closed foot ware to prevent the repeated contact with skin. Use flash proof and dust resistant goggles to prevent the contact with eyes.
Storage	:	Keep the product in original container tightly closed and correctly labeled. Store in suitable, cool, dry, well ventilated place under lock and key; away from the reach of the children, animals, food and animal feeding stuffs. Store away from the incompatible substances and source of ignition

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Technical protective measures	:	None
Exposure controls limits	:	Not Established
Respiratory protection	:	Wear suitable mask
Hand protection	:	Wear impervious gloves
Eye protection	:	Wear flash proof and dust resistant goggles.
Skin protection	:	Wear impervious clothing and closed foot ware.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance: Off-white to yellowish powder
Odor: odorless
Melting point: 162°C
Flashpoint: Not highly flammable
Bulk density: 1.45 g/ml (25°C)
Vapour pressure: 1.10×10^{-07} (25°C)
Solubility in water: 2790 mg/l, in organic solvents: n-Hexane: 0.58mg/l, Acetone: 37000 mg/l, Methanol: 7630 mg/l (all at 20°C)

10. STABILITY AND REACTIVITY



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Stability: Stable under normal temperatures and pressures.

Stability conditions to avoid: Excess heat, and incompatible materials.

Incompatibilities with other material: None reasonably foreseeable

Hazardous Decomposition products: Under fire conditions may produce gases such as oxides of carbon, hydrogen, nitrogen and sulfur.

11. TOXICOLOGICAL INFORMATION

skin irritation: Non-irritating to rabbit

Eye irritation: Slightly irritating to rabbit

Sensitization: Not a sensitizer to Guinea pig.

Oral to Rat: > 5000 mg/kg.

Dermal to Rabbit: > 2000 mg/kg.

Inhalation to Rat: LC₅₀: 5.0 mg/L.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: This pesticide is moderately toxic to fish, and practically non-toxic to birds, bees and other wildlife. Do not apply directly to water, or to areas where surface water is present. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent aquatic sites.

Fish toxicity: LC₅₀(96 h) for trout and bluegill sunfish >1000, fathead minnow 97, channel catfish 130 mg/l.

Avian toxicity: Oral LC₅₀, Bobwhite quail – 5620 mg/Kg (5 day dietary toxicity)

Daphnia: LC₅₀(48 h) 930 mg/l.

Algae: EC₅₀(72 h) for *Scenedesmus subspicatus* 72.9 mg/l.

Worms: LC₅₀(14 d) for *Eisenia foetida* >5000 mg/kg soil.

Bees toxicity: non-toxic: oral/contact 48 h > 100 µg/bee.

Other beneficial spp. No effects on carabid beetle; harmless to slightly harmful to green lacewing, parasite species, mites/spiders and insects, except moderately harmful to *Bembidion lampros*.

13. DISPOSAL CONSIDERATION

Aquatic Organisms: LC₅₀ for fish: Bluegill: > 150mg/l (96h), Rainbow trout: 150mg/l (96h).

LC₅₀ for bird: Bobwhite: 2510 mg/kg,



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Mallard duck: 2510 mg/kg. EC₅₀ for Daphnia: > 150 mg/l (48h) LD₅₀ for Honeybee: > 25µg/kg (48h) LC₅₀ for Earthworms: > 1000mg/kg (14d).

14. TRANSPORT INFORMATION

SHIPPING DESCRIPTION: Not classified as dangerous for transport.
U.N. Number None Allocated.
Hazard Class None Allocated.
Packing Group None Allocated.

15. REGULATORY INFORMATION

Risk Symbols
Xi - Irritant
Risk Phrases
R41 - Risk of serious damage to eyes

16. OTHER INFORMATION

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons on receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produce formulations containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.