



MATERIAL SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION OF THE SUBSTANCE AND COMPANY

Company Address: The National Company For Agrochemicals & Investment

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Product Name: MERITAN 10% G.(Ethoprophos)

Formulation Type : Granules

CAS RN: 13194-48-4

Chemical Name: *O*-ethyl *S,S*-dipropyl phosphorodithioate

Chemical family: Organophosphate

SECTION 2 - COMPOSITION/ INFORMATION ON INGREDIENTS

Component	Percentage	CAS RN
Ethoprophos	10 %	13194-48-4
Inert Ingredient	90%	-----

SECTION 3 - IDENTIFICATION OF HAZARDS

Emergency Overview:

Danger! Poison. Hazard to humans and domestic animals.

Keep out of the reach of children. Poisonous if swallowed, inhaled or absorbed through the skin.

Rapidly absorbed through skin. Do not breathe fumes or dust.

Harmful if swallowed. Toxic in contact with skin. May cause sensitization by skin contact.

Potential health effects :

Eye: May be absorbed through the eye and produce symptoms similar to those from ingestion.

Causes redness, irritation, tearing.

Skin: Harmful if absorbed through skin. May produce symptoms similar to those from ingestion.

May cause irritation, redness, swelling.

Inhalation: Highly toxic if inhaled. May produce symptoms similar to those from ingestion.

May cause dizziness, headache, nausea, vomiting, death.

Ingestion: May be fatal if swallowed. May lead to rapid onset of nausea, vomiting, diarrhea, abdominal pain, involuntary shaking, excess salivation, pinpoint pupils, blurred vision, profuse sweating, temporary paralysis, respiratory depression, and convulsions.



SECTION 4- FIRST AID MEASURES

IF INHALED: Remove to fresh air and keep at rest. If signs of poisoning occur, obtain urgent medical advice, as above. If breathing stops or shows signs of failing, start artificial respiration. Do not use the direct mouth-to-mouth method. Administer oxygen if necessary. Get to a doctor or hospital quickly. If advised by doctor or Poisons Information Center.

IF ON SKIN: If poisoned by skin absorption, remove any contaminated clothing and shoes immediately. Wash skin thoroughly with soap and water for 15-20 minutes. Seek immediate medical assistance - get to doctor or hospital quickly. Persons assisting the patient should protect themselves from contamination. If advised by doctor or Poisons Information Center

IF SWALLOWED: Wash out mouth with water. Keep patient at rest and seek urgent medical advice as above. Transport patient to doctor or hospital quickly. If advised by doctor or Poisons Information Center

DO NOT attempt to give anything by mouth to a semi-conscious or unconscious person.

IF IN EYES: Flush eyes with plenty of water for 15 minutes.

SECTION 5 - FIRE FIGHTING MEASURES

FLASHPOINT: Not flammable

Extinguishing media

Recommended: Water, foam, dry chemical, carbon dioxide (CO₂)

Unusual fire and explosion hazards

Minimize use of water to prevent environmental contamination.

Environmental precautions .

Hazardous products of combustion

Carbon monoxide (CO), nitrogen oxides (NO_x), hydrogen chloride (HCl) .

Fire fighting equipment

Self-contained breathing apparatus.

Equipment should be thoroughly decontaminated after use.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Spillage or Leak Disposal Procedures:

Shut off or remove any sources of ignition. DO NOT smoke. Avoid contact with the spilled material or contaminated surfaces. When dealing with spills wear personal protective (clothing and equipment). Keep people and animals away and upwind. Prevent spilled



material from entering drains or watercourses. Contain spill - remove liquid mechanically (explosion proof or hand pump) or absorb with earth, sand, clay, or other absorbent material. Collect and store in properly labelled, loosely covered drums for safe disposal. Deal with all spillages immediately. If contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority.

Waste Disposal Methods:

When returnable container is empty or contents no longer required return it to the point of purchase. For non-returnable containers, triple or (preferably) pressures rinse them before disposal. Add rinsing to spray tank. Do not dispose of undiluted chemicals onsite. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt. Dispose of waste product via a licensed disposal contractor to an approved landfill.

SECTION 7 - HANDLING AND STORAGE

Handling

Avoid contact with eyes, skin and clothing.

Avoid breathing vapour or mist.

Wash hands thoroughly after handling or contact.

When using do not eat, drink or smoke.

Thoroughly clean equipment after use.

Do not contaminate drains, sewers and water ways when disposing of equipment rinse water.

Emptied containers retain vapour and product residue.

FOLLOW LABELLED WARNINGS EVEN AFTER CONTAINER IS EMPTIED.

Storage

Keep out of reach of children.

Keep away from food, drink and animal feed.

Keep only in the original container.

Keep container tightly closed in a cool, well-ventilated place



SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

ENGINEERING CONTROLS: Control process conditions to avoid contact. Use only in well ventilated areas.

PERSONAL PROTECTIVE EQUIPMENT:

EYE PROTECTION: Wear Safety Goggles

CLOTHING: Wear cotton overalls buttoned to the neck and wrist and a washable hat.

GLOVES: Wear elbow length PVC gloves.

RESPIRATOR: If inhalation is likely, wear a respirator with an organic vapour cartridge.

Other: After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, goggles or face shield, respirator face piece and contaminated clothing.

USER SAFETY RECOMMENDATIONS:

1. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
2. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
3. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPERANCE:	Beige pellets
PHYSICAL STATE:	Solid granules
DENSITY:	0.178 gm/ cm ³
ALKALINITY :	0.098% as NaOH
FLASH POINT:	Not flammable

SECTION 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY: This material is stable under normal handling and storage conditions.

Rapidly hydrolysed in alkaline media. Stable in water up to 100 °C at pH 7.

PHOTOLYSIS: Stable in pH7 at 25 °C light intensity = 40 °N equinox.

CONDITIONS TO AVOID: Extremes of temperature and direct sunlight.



SECTION 11 - TOXICOLOGICAL INFORMATION

I- Acute Toxicity:

Acute Oral	LD ₅₀ Rat: 500 mg/kg
Acute Dermal	Male Rat LD ₅₀ : >2000 mg/kg Female Rat LD ₅₀ : >2000 mg/kg
Inhalation	Male Rat: LC ₅₀ : 0.74 mg/l 4 h Female Rat: LC ₅₀ : 0.36 mg/l 4 h
Skin Irritation	Rabbit: Non-irritating.
Eye Irritation	Rabbit: Moderately irritating

SECTION 12 - ECOLOGICAL INFORMATION

Toxicity to fish	LC ₅₀ :35.48 mg/l of water
Toxicity to Aian (QUAILS)	LC ₅₀ 794.32 ppm
Toxicity to Honeybee	LD ₅₀ 35.48 µg/bee

. SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE:

Pesticide wastes are toxic and hazardous. Dispose of in accordance with applicable and local laws and regulations. Do not discharge or pour into soil, drainage system or bodies of water.

CONTAINER:

Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning (plastic containers). If burned, stay out of smoke.

SECTION 14 - TRANSPORT INFORMATION

The data provided in this section is for information only. Please apply the appropriate regulations to properly

SHIPPING DESCRIPTION: Organophosphate Pesticide, Solid, Toxic (Contains Ethoprophos)

UN NUMBER: UN 2783



HAZARD CLASS: 6.1
PACKING GROUP: PG II
Marine Pollutant: Yes (Ethoprophos is a Marine Pollutant Class "P")

SECTION 15- REGULATORY INFORMATION

Risk Symbols

T+: Very toxic

T : Toxic

N : Dangerous for the environment

Risk Phases (R)

R26/27 Very toxic by inhalation and in contact with skin".

R25 Toxic if swallowed".

R50 Very toxic to aquatic organisms".

R53 May cause long-term adverse effects in the aquatic environment

R43 May cause sensitisation by skin contact

SECTION 16 - OTHER INFORMATION

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