



MATERIAL SAFETY DATA SHEET

PRODUCT : Profenofos 40% + Cypermethrin 4% EC

PRODUCT DESIGNATION : Insecticide

Section 1. Product & Company Identification

Common Name : Profenofos , Cypermethrin

Grade : Formulation

Active Ingredient : Profenofos 40%
Cypermethrin 4%

Chemical Name of Active Ingredient (IUPAC) : **Profenofos** - O-4-bromo-2-chlorophenyl O-ethyl S-propyl phosphorothioate
Cypermethrin- 3-(2,2-dichloroethenyl)-2,2-dimethyl-cyclopropanecarboxylic acid, cyano(3-phenoxyphenyl)methyl ester

Chemical Family of A. I. : **Profenofos** -Organophosphate
Cypermethrin- Synthetic pyrethroid (cyano ester)

Molecular Formula of A. I. : **Profenofos** -C₁₁H₁₅BrClO₃PS
Cypermethrin- C₂₂H₁₉O₃NCl₂

Molecular Mass of A. I. : **Profenofos** -373.6g/mol
Cypermethrin- 416.30g/mol

Manufacturer & Supplier : **M/s PERFECT SOLUTIONS**
Office Add: B-371, Paschim Vihar, New Delhi - 110063 (India)
Factory Add: 15/1, 15/2, 15/3 Industrial Estate, Vidisha - 464001 (M.P)

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Section 2. Composition / Information on Ingredients

Profenofos a.i	40.00 % w/w
Cypermethrin a.i	4.00 % w/w
Castor oil Poly glycol ether 36/40 grade	9.75 % w/w



Dodecyl Benzene Sulfonic Acid calcium salt	5.25%w/w
Soyabean Oil, Epoxydised	1.00% w/w
Solvent C-1X	Q.S %
Total	100.00% w/w

Section 3. Hazards Identification

Ingestion Harmful if swallowed & May cause lung damage Skin contact Irritating to skin, May cause sensitization by skin contact Eye contact Risk of serious damage to eyes

Section 4. First Aid Measures

Eyes Rinse eyes with clean water for several minutes and immediately call a physician.

Skin Remove contaminated clothing and thoroughly wash the affected parts of the body with soap and water.

Ingestion Repeatedly administer medicinal charcoal in a large quantity of water. NOTE: Never give anything by mouth to an unconscious person. Do not induce vomiting. If medical assistance is not readily available, and poisoning symptoms are severe, vomiting should be induced by tickling the finger on the back of the patient's throat.

Inhalation remove to fresh air.

Note to physician Treat as a cholinesterase inhibitor.

Antidote Atropine in addition oxime preparation such as toxogon in under medical supervision. Inject 2-4 mg Atropine Sulphate (for children 0.2 to 5 mg) i.v. or i.m. every 5 to 10 minutes until sings of atropinisation occurs. The patient must remain atropinised for a length of time (24 to 48 hours) to prevent subsequent poisoning due to delayed resorptions.

Section 5. Fire Fighting Measures

Combustibility yes

Suitable Extinguishing Media Dry chemical extinguisher, foam, carbon dioxide or water spray (Do not use direct jet of water).



Special Hazards during Fire Fighting Combustion products are toxic and/or irritant. Measures have to be taken to prevent the contaminated extinguishing agent from seeping into the ground or from spreading uncontrollably.

Protective Equipment for Fire Fighting Use self-contained breathing apparatus. Wear protective equipment.

Section 6. Accidental Release Measures

Environmental Protection Measures following Accidents: Soak up with absorptive material such as sand, soil, diatomaceous earth, etc. Prevent material from spreading, e.g. by damming in with absorptive material. Collect material in specially marked, tightly closing containers. Spilled product cannot be used further and must be disposed of. If safe disposal is not possible, contact the manufacturer, the dealer or the local representative. Do not contaminate waters and sewers. Keep away from sources of ignition.

Section 7. Handling & Storage

Handling information Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Special Instructions for Storage Store the product in closed original containers. Protect from light and humidity. Storage depot protected against fire.

Storage Compatibility with other Products Store separate from food and feed.

Storage Temperature Max. Storage Temperature: 35°C Min. Storage Temperature: -10°C

Section 8. Exposure Control, Personal Protection

Breathing Protection In case of heavy exposure, wear: Gas mask with universal filter.

Eye protection Goggles or face-shield
Body Protection Heavy duty cotton or synthetic fabric working clothes (e.g. overalls). Heavyduty shoes or boots.

Hand Protection Chemical-resistant gloves

Precautionary measures after work Wash thoroughly (shower, bathe, wash hair). Change clothing. Thoroughly clean protective gear. Thoroughly clean contaminated equipment with soap or soda solution.



Section 9. Physical and Chemical Propertie

Appearance / state	: Pale yellow to light brown liquid
Colour	: Pale yellow to light brown
Odour	: Garlic like smell
Boiling point	: >180 °C
Vapour pressure	: 1.24 X 10 ⁻¹ mPa (25 °C)
pH	: 3-7
Flash Point	Above 35°C
Density	: 1.06 - 1.08 g/cm ³ (20°C) pH 5.0 - 7.0 (1% Emulsion in water)
Water Solubility	: Miscible in water

Section 10. Stability & Reactivity

Chemical Stability Stable under standard conditions.

Incompatibility: Avoid moisture.

Hazardous decomposition: Emits toxic fumes under fire conditions. CO, CO₂, chloride and hydrogen bromide, phosphoric acid and phosphorous pentoxide.

Section 11. Toxicological Information

Acute oral LD₅₀ : 1500 mg/kg (rat.)

Acute dermal LD₅₀ : >2000 mg/kg (rat)

Acute inhalation LC₅₀ : LC₅₀ (4h) for rats > 8 mg/l air.

Acute skin irritation : Mild skin irritant.

Acute eye irritation : Moderately eye irritant.

Skin sensitization : Weak skin sensitizer. Not a sensitizer.

Carcinogenicity : Not carcinogenic

Teratogenicity : Not Teratogenic

Mutagenicity : No Mutagenicity was observed.

ADI : 0.01 mg/kg **NOEL** : 0.3 mg a.i/kg diet – rats, 2 year study



Section 12. Ecological Information

Birds : Highly toxic

LC50 (8 days) : Bobwhite quail: 70 to 200 ppm

Mallard duck : 150 to 612 ppm ,Japanese quail : >1000 ppm

Fish : Highly toxic to aquatic organisms. LC50 (96 hours) : Rainbow trout: 0.08 mg/l

Bluegill sunfish : 0.3 mg/l Crucial carp : 0.09 mg/l

Bees : Toxic to bees.

Other : Very toxic to crustaceans, algae and daphnia

Section 13. Disposal Consideration

Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be reused or reprocessed. Never pour untreated waste or surplus products into public sewers or where there is any danger of run-off or seepage into water systems. Contaminate rivers, dams or any other water sources with the product or used containers. Comply with local legislation applying to waste disposal.

Container disposal Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is destroyed.

TRIPLE RINSE empty containers in the following manner: Invert the empty container over the spray or mixing tank and allow draining for at least 30 seconds after the flow has slowed down to a drip. Thereafter rinse the container three times with a volume of water equal to a minimum of 10 % of that of the container. Add the rinsing to the contents of the spray tank before destroying the container in the prescribed manner. Do not re-use the empty container for any other purpose but destroy it by perforation and flattening and bury in an approved dumpsite. Prevent contamination of food, feedstuffs, drinking water and eating utensils. Comply with local legislation applying to waste disposal.

Section 14. Transport Information

IMDG Classification

Shipping name : Environmentally hazardous substance, toxic, liquid, n.o.s.

Class : 6.1

Packing group : III



UN number : 3017

Marine pollutant : Yes

Section 15. Regulatory Information

Symbol : Xn

Indication of danger: Harmful

Risk phrases

R 10 Flammable

R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R 36/38 Irritating to eyes and skin.

R 50 Very toxic to aquatic organisms.

R 57 Toxic to bees.

Safety phrases

S 1/2 Keep locked up and out of reach children.

S 13 Keep away from food, drink and animal feeding stuffs. S 16 Keep away from source of ignition – No smoking.

S 20/21 When using do not eat, drink or smoke.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 46 If swallowed seek medical advice immediately and show this container or label.

S 61 Avoid release to the environment. Refer to special Instructions/safety data sheets.

S 62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Section 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 resented 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



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