



# **MATERIAL SAFETY DATA SHEET**

# 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name : Chlorpyrifos 10% GR

**Common Name** : Chlorpyrifos

**IUPAC Name** : O,O-diethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate

**Chemical Abstracts** 

Name

O,O-diethyl O-(3,5,6-trichloro-2-pyridinyl)

phosphorothioate

**CAS No.** : [2921-88-2]

 $\begin{array}{lll} \textbf{Chemical formula} & : & C_9H_{11}\,Cl_3NO_3PS \\ \end{array}$ 

Molecular weight : 350.6

Chemical Family : Organophosphate

Use : Insecticide

Company Name : Solas Croptech Private Limited.

Address : 36, Strand Road, 4th Floor, Room No-01, Kolkata-700001

**Phone No.** : (033) 2231-3306

E-mail : solascroptech@yahoo.in
Website : www.solascroptech.com

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name CAS No. Content % (w/w)

Chlorpyrifos [2921-88-2] 10% Other - 90%

#### 3. HAZARDS IDENTIFICATION

Classification of the : Acute toxicity, Category II

**Hazardous Chemical:** Reproductive toxicity, Category 1B

**Signal Word:** : DANGER.

**Hazard Statement(s):** : H302 Harmful if swallowed.





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Hazards H360Df May damage the unborn child. Suspected

of damaging Fertility.

Precautionary

**Statement(s):** 

: P201 Obtain special instructions before use.

P280 Wear protective gloves/ protective clothing/

Eye protection/ face protection.

P308 + P313 IF exposed or concerned: Get medical

Advice/attention.

**Skin and Eyes** : Avoid contact with skin and eyes.

**Entry route** : Ingestion, Inhalation, Contact with eye or skin.

**Symptoms of poisoning** : No cases of human poisoning are on record. The

poisoning symptoms observed for laboratory

animals were non-specific.

4. FIRST AID MEASURES

**Ingestion** : If swallowed, seek medical advice immediately

DO NOT induce vomiting.

**Eye** : Rinse immediately with plenty of water, also under the

Eyelids, for at least 15 minutes. Remove contact

lenses. Immediate medical attention is required

Skin : Take off all contaminated clothing immediately. Wash

off immediately with plenty of water. If skin irritation persists, call a doctor. Wash contaminated clothing

before reuse

Inhalation : Remove to fresh air. If breathing is irregular or

stopped, administer artificial respiration. Keep patient warm and at rest. Call a doctor or Poison Information

Centre

immediately

**Advice to Physician** : No specific Antidote. Treat symptomatically.

## 5. FIRE FIGHTING MEASURES

**Specific Hazard**: There is no risk of an explosion from this product





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under normal circumstances if involved in a fire.

**Extinguishing Media** 

: Small fires: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. DO NOT use a solid water stream as it may scatter and spread fire.

Large fires: Use alcohol-resistant foam or water spray.

DO NOT use a solid water stream as it may scatter and spread fire.

Hazard From Combustion products

: As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion .

Exposure to decomposition products may be a hazard

to health.

**Protective equipment** 

: Wear full protective clothing and self-contained breathing apparatus.

#### 6. ACCIDENTAL RELEASE MEASURES

In Case of Emergency

- : In case of spillage it is important to take all steps necessary to
  - Avoid eye and skin contact
  - Avoid contamination of waterways Wear full length clothing and PVC gloves, Keep all bystanders away

#### Clean up Procedures

- : Procedure for spill
  - (1) Keep all bystanders away
  - (2) Wear full length clothing and PVC gloves
  - (3) Reposition any leaking containers so as to minimise further leakage
  - (4) Dam and absorb spill with an absorbent material (e.g. sand or soil)
  - (5) Shovel the absorbed spill into drums
  - (6) Disposal of the absorbed material will depend upon the extent of the spill
  - For quantities up to 50 L of product bury in a secure landfill site
  - For quantities greater than 50 L seek advice from the Manufacturer (use emergency contact number below) before attempting disposal. Contain in a secure location until disposal method is established
  - (7) Decontaminate spill area with detergent and water and rinse with the smallest volume of water practicable



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# 7. HANDLING AND STORAGE

**Handling** : Avoid contact with eyes and skin. Do not inhale spray

mist. Wash hands after use.

Storage : Store in tightly sealed original containers in a dry

secure place away from fertilisers, seed, feed and food. Store out of direct sunlight. Keep out of reach of

children, unauthorised persons and animals.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Controls**: In the Workplace: ensure ventilation is adequate and

that air concentrations of components are controlled below quote Workplace Exposure Standards. Keep containers closed when not in use. No special

requirements. Product is used outdoors.

**Ingestion** : DO NOT eat, drink or apply cosmetics, where there is a

potential for exposure to the product.

**Eye Protection** : Safety goggles, chemical splash goggles or face shield

for eyes protection should be used. Safety showers and

eye wash should be easily available.

**Skin Protection** : Chemical resistant gloves, coveralls socks, apron and

chemical resistant foot covering should always be used

while handling the product.

**Respiratory protection**: Always use NIOSH/MSHA approved respiratory

protection equipment with a universal filter type

including particle filter.

General Protection : Avoid contact with eyes and skin. While handling the

product wear cotton overalls buttoned to the neck and wrist. Elbow-length PVC gloves and face shield. After use and before eating, drinking and smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves and contaminated

clothing.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES





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**Colour**: Colourless (based on technical information)

Odor : With a mild mercaptan odour (based on technical

information)

Physical state : Crystals (based on technical information)

Density : 1.44 (20 °C) (based on technical information)

Vapour pressure : 2.7 mPa (25 °C) (based on technical information)

Solubility(g/l) at 25°C : In water 1.4 mg/l (based on technical information)

# 10. STABILITY AND REACTIVITY

Chemical Stability : Stable under normal use and storage conditions.

**Conditions to Avoid** : See "Unusual Fire, Explosion and Reactivity Hazards"

statement,

**Incompatible Materials**: Oxidizing agents, strong acids or bases.

Hazardous : Can decompose at high temperatures forming toxic

**decomposition products** gases.

**Hazardous Reactions**: No polymerization will occur.

#### 11. TOXICOLOGICAL INFORMATION

Based on technical information:

Acute Oral LD<sub>50</sub> : For rats: 135-163 mg/kg bw.

Acute Dermal LD<sub>50</sub> : For rats: >2000 mg/kg

Acute Inhalation LC50: For rats (4-6 h) : >0.2 mg/l (14 ppb).Skin Irritation: It can be mild skin irritant (Rabbit)Eye Irritation: It can be moderate eye irritant (Rabbit)

**Skin Sensitization** : Not a skin sensitizer (Guinea pig)

# 12. ECOLOGICAL INFORMATION

Based on technical information

Acute oral LD<sub>50</sub> For Mallard duck : 490 mg/kg
Dietary LC<sub>50</sub> (8d) For Mallard duck : 180 ppm

Fish:

 $\begin{array}{lll} \textbf{Bluegill sunfish} & : & LC_{50} \ (96 \ h) \ 0.002 \text{-} 0.010 \ mg/l \\ \textbf{Rainbow trout} & : & LC_{50} : 0.007 \text{-} 0.051 \ mg/l \\ \textbf{Daphnia} & : & LC_{50} \ (48 \ H) \ 1.7 \ \mu g/l \\ \end{array}$ 





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**Bee** : LD<sub>50</sub> (Oral): 360 ng/bee

(Contact: 70 ng/bee

Worm:

Eisenia foetida : LC<sub>50</sub> (14 d) 210 mg/kg soil

#### 13. DISPOSAL CONSIDERATIONS

Disposal : Dispose of this product only by using according to the

label. Do not contaminate drains, streams, rivers or waterways with the chemical or used container. Add

rinsing's to spray tank.

Disposal of empty

Containers

(1) Rinse containers before disposal. Add rinsing's to the spray tank. DO NOT dispose of undiluted chemicals on

site.

(2) Dispose of rinsed, empty containers at 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.

# 14. TRANSPORT INFORMATION

**Shipping Name**: Organo phosphorous pesticide, Solid, toxic, (Chlorpyrifos)

(based on technical information)

UN No. : 2783

Class : Class-6.1

Packing group : III Marine : Yes

pollutant

## 15. REGULATORY INFORMATION

Hazard symbol



Dangerous for the environment (N)

**Risk Phrase** R22, harmful if swallowed. R38, irritating to skin. R41, risk of serious





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damage to eyes. R43 may cause sensitisation by skin contact.

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

phrase S 26: In case of contact with eyes rinse immediately with plenty of

water and seek medical advice.

S 35: The material and its container must be disposed-off in a safe

way.

#### **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 the recipient subsequently produces formulations containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS. Accordingly, no guarantee or warrantee expressed or implied is made by Solas Croptech Private Limited as to the results to be obtained based upon the user's use of the information, nor does Solas Croptech Private Limited assume any liability arising out of user's use of the information.

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