# MATERIAL SAFETY DATA SHEET

## 480G/L Chlorpyrifos EC

#### 1. IDENTIFICATION

Product name: 480G/L Chlorpyrifos EC

Chemical name of active ingredient: Chlorpyrifos: O,O-diethyl-O-(3,5,6-trichloro-2-pyridyl)

Phosphorothioate

Manufacturer: Zhejiang Xinnong Chemical Co., Ltd

Sanlixi, Yangfu, Xianju County, Zhejiang

P.R.317300, China

Phone: 0086-576-87733616

For fire, spill, or leak emergencies: Phone: 0086-576-87733673

For medical emergencies, health and Phone: 0086-576-87733671

Safety inquiries:

# 2. COMPOSTITION/INFORMATION ON INGREDIENTS

COMMON NAME	Chlorpyrifos
CAS NO.	2921-88-2
Content of Active ingredient	480G/L

## 3. HAZARDS INDENTIFICATIONS:

- Cholinesterase inhibitor, may be fatal if swallowed.
- Harmful if absorbed through skin or inhaled.
- Causes mildly to moderate eye irritation.
- Avoid breathing product vapors or spray mist.
- Avoid contact with eyes, skin or clothing.
- Keep out of reach of children.

Symptoms of over exposure are headaches, nausea, vomiting, cramps, weakness, blurred vision, pinpoint pupils, tightness in chest, labored breathing, nervousness, sweating, watering of eyes, drooling, muscle spasms and coma.

### POTENTIAL HEALTH EFFECTS:

Eye: Irritating, and may injure eye tissue if not removed promptly.

Skin: Harmful if absorbed through the skin. Large exposures could be fatal.

Inhalation: Vapor or mist concentrations may be harmful if inhaled. High concentrations could be fatal.

Ingestion: May be fatal if swallowed.

## POTENTIAL PHYSICAL HAZARDS:

Combustible liquid and vapor

### 4. FIRST AID MEASURES

## FIRST AID Organophosphate

### **SWALLOWED**

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Don not give anything by mouth to an unconscious person.

#### IN EYES

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

## ON SKIN OR CLOTHING

- 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.

## **INHALED**

- Move person to fresh air.
- If person is not breathing, call an ambulance, then give artificial respiration, preferably mouth-to -mouth if possible.
- Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

**Note to Physician:** This product contains an organophosphate that inhibits cholinesterase. Treat symptomatically. If exposed, plasma and red blood cell cholinesterase tests may indicate significance of exposure. Atropine, only by injection, is the preferable antidote. Oximes, such as 2-PAM/protopam, may be therapeutic if used early; however, use only in conjunction with atropine. In case of severe acute poisoning, use antidote immediately after establishing an open airway and respiration.

**NOTE TO PHYSICIAN**: Chlorpyrifos is a cholinesterase inhibitor.

## 5. FIRE FIGHTING MEASURES

**FLASH POINT**: >50°C

**EXTINGUISHING MEDIA**: Foam, CO<sub>2</sub>, dry chemical

**FIRE & EXPLOSION HAZARDS**: Foam fire extinguishing system is preferred because uncontrolled water can spread possible contamination. Toxic, irritating gases may be formed under fire conditions. Violent rupture due to over-pressurization may occur at temperatures generated during a fire.

### 6. ACCIDENTAL RELEASE MEASURES

**ACTION TO TAKE FOR SPILLS/LEAKS:** 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.

### 7. HANDLING AND STORAGE

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** Keep out of reach of children. Do not get in eyes, on skin or clothing. Avoid breathing vapor and spray mist. Users should wash hands before eating, drinking, using tobacco, or using the toilet.. For handling relative to the end-use of this product, read the product label. Stored in original container and in a dry storage area.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

### RESPIRATORY PROTECTION:

When atmospheric levels excess the exposure guidelines, it suggests wearing an air-purifying face-shield (half-style). For emergency rescue and evacuation, make sure an air-respiration apparatus or an oxygen-respiration apparatus should be wear.

## **SKIN PROTECTION:**

Use protective clothing impervious to this material. Selection of specific items such as face-shield, gloves, boots, apron, or full body suit will depend on operation.

## **EYE PROTECTION:**

Use chemical goggles.

## **APPLICATORS AND ALL OTHER HANDLERS:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves.
- Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacture's instructions for cleaning and maintaining **PPE**. If no such instructions for washables, use detergent and hot water. Keep and wash **PPE** separately form other laundry.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: stable and homogeneous liquid

Flash point: >50°C

Molecular weight: 350.6

Molecular formula:  $C_9H_{11}CL_3NO_3PS$ Content of activities(g/L)  $\ge 480$ 

**Moisture,%** ≤0.3%

Solubility: acetone, very soluble; water, slight soluble

Specific gravity(20°C):  $1.10\pm0.03$ 

## 10. STABILITY AND REACTIVITY

### STABILITY:

Unstable in alkalescency condition, and stable in weak acidity condition, easy to be hydrolyzed

HAZARDS DECOMPOSITION PRODUCTS: NATCP HAZARDOUS POLYMERIZATION: Not known to occur.

#### 11. TOXICOLOGICAL INFORMATION

Eye irritation: mildly to moderate to rabbit eye irritation and/or corneal injury. Vapors may irritate the eyes.

**Dermal irritation:** mild irritation to rabbits

Acute dermal toxicity:

Acute dermal  $LD_{50}$  for rats >2000mg/kg, low toxicity Prolonged exposure may cause moderate skin irritation.

### **Acute oral toxicity:**

LD 5 0 (Cut off value): 500 mg/kg body weight and is classified as Category 4, LD50 is greater than 300 mg/kg body weight and less than 2000 mg/kg body weight.

Small amounts swallowed incidental to normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause lung damage or death due to chemical pneumonia.

Excessive exposure may produce organophosphate-type cholinesterase inhibition. Excessive vapor concentrations are attainable and could be hazardous on single exposure. Excessive exposure to solvent may cause respiratory irritation and central nervous system depression. Signs and symptoms of central nervous system depression are in order of increasing exposure, headache, dizziness, drowsiness, and incoordination.

### **Systemic (other target organ effects):**

Excessive exposure may produce organophosphate-type cholinesterase inhibition. Signs and symptoms of excessive exposure to chlorpyrifos may be headache, dizziness, incoordination, muscle twitching, tremors, nausea, abdominal cramps, diarrhea, sweating, pinpoint pupils, blurred vision, salivation, tearing, tightness in chest, excessive urination, convulsions. Chlorpyrifos produced mild adrenal effects when fed to rats, but only at doses that great exceeded any exposures that would be received during normal use of this product, Solvent has been reported to cause liver, kidney and blood effects at high exposure levels.

**Cancer information:** chlorpyrifos do not cause cancer in laboratory animals.

**Reproductive effects:** Rat, N/A, NOAEL10ppm. Mallard Duck, N/A, 25ppm (EPA)

# 12. ECOLOGICAL INFORMATION

## **ENVIROMENTAL FATE**

The photolysis half-life in water is 60-120 days.

Half-life in the soil is 60-120 days.

Material is moderately toxic (96h) to a quatatic organisms LC50: Goldfish > 0.806 , Rainbow trout 0.0009-0.51 mg/L and Bulegill sunfish 0.002-0.01 mg/L .

#### 13. DISPOSAL CONSIDERATIONS

**PESTICIDE DISPOSAL:** Do not contaminate water, food. Open dumping is prohibited. Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of law. If these wastes cannot be disposed of by use according to label instructions, contact your state pesticide or environmental control agency or the hazardous waste representative at the nearest Regional Office.

**CONTAINER DISPOSAL FOR REFILLABLE CONTAINERS**: Replace the dry-disconnect cap, if applicable, and seal all openings that have been opened during use. Return the empty container to a collection site. If the container has been damaged and cannot be reused according to the recommended procedures, Contact the Local Customer Service Center to obtain proper handling instructions.

**CONTAINER DISPOSAL FOR NON-REFILLABLE CONTAINERS**: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. Or, triple rinse (or equivalent). Then puncture and dispose in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## 14. TRANSPORT INFORMATION

## SHIPPING DESCRIPTION:

**Non-Bulk packaging:** Organophosphorus pesticide, liquid, toxic, 6.1, UN 3018, PG III **Bulk packaging:** Organophosphorus pesticide, liquid, toxic, 6.1, UN 3018, PG III

**UN NUMBER: 3018** 

PACKING GROUP: PG III

PRIMARY/SUBSIDIARY LABEL: 6.1

## 15. REGULATORY INFORMATION

**NOTICE:** The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with national, or provincial, and local laws.

This product contains the following substance(s) listed as "Hazardous Substances", which may require reporting of releases:

Chemical Name CAS Number CAS Active Ingredient

Chlorpyrifos 2921-88-2 480G/L

# 16. OTHER INFORMATION

Revised: August 2019, the 3<sup>rd</sup> revision.

The information herein is given in good faith, but no warrant, express or implied, is made.