

**SAFETY DATA SHEET (SDS)**

TITLE: CHLORPYRIFOS 480 EC

**1.0 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY / UNDERTAKING****1.1 Product Identifier**

Product Name : AG CHLORPYRIFOS 480 EC  
Common Name : Chlorpyrifos 480 g/l EC  
CAS No. : 2921-88-2  
EC No. : 220-864-4  
Index Number : N/A  
REACH registration No. : N/A

**1.2 Relevant identified uses of the substance and uses advised against:**

Non systemic insecticide with contact, stomach and vapour action. Cholinesterase inhibitor.

**1.3 Details of the Manufacturer / Supplier of the safety data sheet:**

Supplier AGROMECC SARL  
P.O.Box: 462  
Jounieh, Lebanon  
Tel +961 9 226874  
E-mail agromec@agromec-international.com  
Webpage www.agromec-international.com

**1.1 Emergency Phone Number (24 hours)**

+961 3 980599

**2.0 HAZARDS IDENTIFICATION****2.1 Classification of the mixture:****2.1.1 Classification:**

The substance is classified as following according to 67/548/EEC and REGULATION (EC) No 1272/2008 (CLP).

**1272/2008/EU**

Pictograms / Signal word code (s)

Hazard Statement Code (s)

GHS06, GHS02, GSH08, GSH09, Dgr	H301, H400, H410, H226, H304, H335, H336, H411, P102, P280, P301, P305, P404,
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For full text of H-phrases: see section 2.2.1

67/548/EEC (DSD)		
Classification and Indication of Danger (s)	R-Phrases	S-Phrases
F, Xn, N, T	R: 25-50/53-10-65-37-66-67-51/53-	S: 1/2-45-60- 61

For full text of R-phrases and S-phrases: see section 2.2.2

## 2.2 Label elements

### 2.2.1 According to 1272/2008/EU REGULATION

Pictograms / Signal word code (s) Dgr



GHS02



GHS06



GSH08



GSH09

Hazard Statement code (s)

- H226 : Flammable liquid and vapour
- H301 : Toxic if swallowed.
- H304 : May be fatal if swallowed and enters airways
- H335 : May cause respiratory irritation
- H336 : May cause drowsiness or dizziness
- H400 : Very toxic to aquatic life
- H410 : Very toxic to aquatic life, May cause long lasting harmful effects to aquatic life
- H411 : Toxic to aquatic life with long lasting effects

### 2.2.2 According to 67/548/EEC REGULATION

Indication (s) of Danger :



F- Flammable



T - Toxic



Xn – Harmfull



N – Dangerous for the Environment

Risk phrases

- R10 : Flammable
- R 25 : Toxic if swallowed
- R65 : Harmful: may cause lung damage if swallowed

R37	:	Irritating to respiratory system
R 50	:	Very toxic to aquatic organisms
R66	:	Repeated exposure may cause skin dryness or cracking
R67	:	Vapours may cause drowsiness and dizziness
R51/53	:	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

#### Safety phrases

S 1	:	Keep locked up
S 2	:	Keep out of the reach of children
S 45	:	In case of accident or if you feel unwell, seek medical advice immediately (show label where possible)
S 60	:	This material and/or its container must be disposed of as hazardous waste
S 61	:	Avoid release to the environment. Refer to special instructions safety data sheet

### 2.3 Other hazards

Specific concentration Limits and M factors: Not available

## 3.0 COMPOSITION/INFORMATION ON INGREDIENTS

Substance Name / CAS No	% w/v	Risk and Safety Phrases (67/548/EEC)	Hazard Symbols (67/548/EEC)	Hazard Pictograms (1272/2008/EC)	Hazard Statements (1272/2008/EC)
Chlorpyrifos / 2921-88-2	48,0	R: 25-50/53 S: 1/2-45-60- 61	T, N	GSH06, GSH09, Dgr	H301, H400, H410
Surfactants (blend of anionic and non- Anionic surfactants)	6,0	N/A	N/A	N/A	N/A
Organic solvent	Up to 100%	R10-65-37-66-67-51/53	Xn, F	GSH08,GHS02, Dgr	H226,H304,H335 H336, H411

## 4.0 FIRST AID MEASURES

### 4.1 Description of first aid measures

#### 4.1.1 General information

Never give fluids or induce vomiting if patient is unconscious or is having convulsions.

#### **4.1.2 In case of inhalation**

Remove to fresh air. Consult a physician.

#### **4.1.3 In case of skin contact**

Wash skin thoroughly with soap and water.

#### **4.1.4 In case of eyes contact**

Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist.

#### **4.1.5 In case of ingestion**

Do not induce vomiting. Call a physician and/or transport to emergency facility immediately. The decision of whether to induce vomiting or not should be made by a physician.

#### **4.1.6 Notes for the doctor**

This material contains a cholinesterase inhibitor. Signs of poisoning may include: Dizziness. Nausea. Vomiting. Intestinal spasms. Diarrhoea. Contracted pupils. Difficulty in breathing. Other non-specific effects. Atropine, only by injection, is the preferable antidote. Oximes, such as 2-PA M/protopam, may be therapeutic if used early; however, use only in conjunction with atropine. If lavage is performed, suggest endotracheal and/or oesophageal control. Danger from lung aspiration must be weighted against toxicity when considering emptying the stomach. Supportive care. Treatment based on judgment of physician in response to symptoms of patient.

## **5.0 FIRE – FIGHTING MEASURES**

### **5.1 Extinguishing media**

Suitable extinguishing media : Water fog or fine spray. Carbon dioxide. Dry chemical fire extinguishers. Foam.

Unsuitable extinguishing media : N/A

### **5.2 Special hazards arising from the substance or mixture**

Hazardous combustion products : Hydrogen chloride. Sulphur oxides. Nitrogen oxides. Dependant on the intensity of the fire.

### **5.3 Advice for fire-fighters**

Wear protective clothing and use self-contained breathing apparatus.

### **5.4 Additional information**

Violent eruption of containers may occur under fire conditions. Keep containers cool by spraying with water. Contain runoff to prevent entry into water or drainage systems.

## 6.0 ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

#### 6.1.1 For non-emergency personnel

Protective equipment : Wear appropriate safety clothing and eye/face protection. Use self breathing apparatus

Emergency procedures : N/A

#### 6.1.2 For emergency responders

Personal protective equipments : Wear appropriate safety clothing and eye/face protection

### 6.2 Environmental precautions

Do not wash into sewers or into any body of water. Advise water authority if spillage has entered water course or drainage system.

### 6.3 Methods and material for containment and cleaning up

#### 6.3.1 For containment

See section 7.2.

#### 6.3.2 For cleaning up

Soak up with sand or other non-combustible absorbent material and place into containers for disposal. For large spills, barricade area and consult manufacturer. If further assistance is required, telephone the emergency contract number.

#### 6.3.3 Other information

Not available

### 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

### 6.5 Additional information

Eliminate all ignition sources.

## 7.0 HANDLING AND STORAGE

### 7.1 Precautions for safe handling

#### 7.1.1 Protective measures

Fire preventions : See section 5.3

Aerosol and dust generation preventions : See section 6.1.

Environmental precautions : See section 6.2.

### 7.1.2 Advice on general occupational by hygiene

Use good personal hygiene. Do not consume or store food in the work area. Wash hands and exposed skin before eating, drinking or smoking and after work. Avoid contact with eyes and skin.

## 7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions : Product should be stored in compliance with local regulations.

Packaging materials : Store in the original container only.

Requirements for storage rooms and vessels : Store in a cool, dry well-ventilated place in the original container. Protect from excessive heat and cold.

Hints on storage assembly : Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilisers. Keep out of reach of children.

Further information on storage conditions : Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilisers. Keep out of reach of children.

## 7.3 Specific and use(s)

Recommendations : N/A

Industrial sector specific solutions : N/A

## 8.0 EXPOSURE CONTROL/PERSONAL PROTECTION

### 8.1 Control parameters

#### 8.1.1 Occupational exposure limits

Chlorpyrifos: ACGIH Threshold Limit Value (LTV) is 0.2 mg/m<sup>3</sup> TWA-8 hours (skin).

Supplier recommendation for solvent is 100ppm.

8.1.2 Additional exposure limits under the conditions of use: Not available

8.1.3 DNEL/DMEL and PNEC-Values: Not available.

### 8.2 Exposure controls

#### 8.2.1 Appropriate engineering controls

Good general ventilation should be sufficient for most conditions.

Local exhaust ventilation may be necessary for some operations.

### 8.2.2 Personal protection equipment

Not available

### 8.2.3 Eye / Face protection

Use chemical goggles and safety glasses.

### 8.2.4 Skin Protection

Hand / body protection Wear clean, long-sleeved, body-covering clothing. Use gloves chemically resistance to this material when prolonged or frequently repeated contact could occur.

For emergency conditions: Use protective clothing impervious to this material. Selection of specific items will depend on operation.

### 8.2.5 Respiratory protection

For most conditions, no respiratory protection should be needed.

However, when airborne exposure guidelines and/or comfort levels may be exceeded use an approved air-purifying respirator.

For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

## 9.0 PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance	:	Liquid
Colour	:	Bright Red
Odour	:	Characteristic
Odour threshold	:	N/A
pH	:	5.0 - 7.0
Melting point/rang (°C)	:	N/A
Boiling point/range (°C)	:	N/A
Flash point (°C)	:	52°C (PMCC)
Flammability (solid, gas)	:	N/A
Ignition temperature (°C)	:	N/A
Upper/lower flammability/explosive limits	:	N/A
Vapour pressure (°C)	:	N/A
Density (20°C)	:	1.08 g/cm <sup>3</sup> (approx.)
Water solubility (g/l)	:	Emulsifiable
n-Octanol/Water (log Po/w)	:	N/A
Auto-ignition temperature	:	N/A
Decomposition temperature	:	N/A
Viscosity, dynamic (mPa s)	:	N/A

## 9.2 Other information

Fat solubility (solvent-oil to be specified) etc	:	N/A
Bulk Density	:	N/A
Dissociation constant in water (pKa)	:	N/A
Oxidation-reduction Potential	:	N/A

## 10.0 STABILITY AND RELIABILITY

### 10.1 Reactivity

Not available

### 10.2 Chemical stability

Is stable under normal storage conditions.

### 10.3 Possibility of hazardous reactions

Not available

### 10.4 Conditions to avoid

Avoid extremes of temperature. Rapid decomposition occurs above 160 deg. C. Product undergoes exothermic decomposition which can lead to high temperatures and violent decomposition if heat developed is not removed.

### 10.5 Incompatible materials

Strong acidic, basic or oxidising materials.

### 10.6 Hazardous decomposition products

None under normal conditions of storage and use.

## 11.0 TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

<b>Ingestion</b>	:	Moderate toxicity if swallowed. The oral LD50 for rats is 316mg/kg.
<b>Skin Contact</b>	:	The dermal LD50 for rats is >2000mg/kg. Prolonged skin contact is unlikely to result in absorption of harmful amounts. Essentially nonirritating to the skin.
<b>Sensitisation</b>	:	Non-sensitising to quinea pig skin.
<b>Eye Contact</b>	:	May cause moderate eye irritation.



<b>Inhalation</b>	:	No adverse effects anticipated by this route of exposure incidental to proper handling.
<b>Other information</b>	:	Excessive exposure may cause organophosphate type cholinesterase inhibition.
Germ cell mutagenicity	:	Not available
Carcinogenicity	:	Not available
Reproductive toxicity	:	Not available
STOT- single exposure	:	Not available
STOT- repeated exposure	:	Not available
Aspiration hazard	:	Not available

## 12.0 ECOLOGICAL INFORMATION

### 12.1 Toxicity

#### 12.1.1 Aquatic Toxicity

Material is very highly toxic to fish on an acute basis ( $0.1 \text{ mg/L} < \text{LC}_{50} < 1 \text{ mg/L}$ ).

Material is very highly toxic to aquatic invertebrates on an acute basis ( $\text{LC}_{50} < 0.1 \text{ mg/L}$ ).

#### 12.1.2 Avian Toxicity

Material is moderately toxic to birds on an acute basis ( $50 \text{ mg/kg} < \text{LD}_{50} < 500 \text{ mg/kg}$ ).

### 12.2 Persistence and degradability

Assessment largely or completely based on data for active ingredient.

Does not leach in soils and is therefore unlikely to contaminate ground water. Half-life in soils is dependent on soil type and conditions and is approximately 60 days.

### 12.3 Mobility in soil

Not available

### 12.4 Result of PBT & vPvB assessment

Not available

### 12.5 Other adverse effects

Toxic to bees.

## 13.0 DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

13.2 See section 6.3.2.

### 13.3 Product / Packaging disposal

#### 13.3.1 Product waste disposal

Very toxic to aquatic organisms. Do not contaminate ponds, waterways or ditches with chemical or used container. Wash out thoroughly.

#### 13.3.2 Packing waste disposal

Container and washings must be disposed of safely and in accordance with applicable regulations. The preferred options are to send to licensed reclaimer or to permitted incinerators. Do not re-use container for any purpose.

## 14.0 TRANSPORT INFORMATION

### 14.1 Land transport (ADR/RID/GGVSE)

UN-No	:	3017
Proper shipping name	:	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE, flash point 23°C or more (Chlorpyrifos and petroleum distillate)
Class (es)	:	6.1 (3)
Classification Code (s)	:	TF2
Packing group	:	III
Hazard label(s)	:	6, 3, marine pollutant

### 14.2 Sea transport (IMDG-Code/GGVSee)

UN-No	:	3017
Proper shipping name	:	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE, flash point 23°C or more (Chlorpyrifos and petroleum distillate)
Class(es)	:	6.1 (3)
Subsidiary Risks	:	3
Packing group	:	III
Marine Pollutant	:	YES
Label (s)	:	6, 3, marine pollutant

### 14.3 Air transport (ICAO-IATA/DGR)

UN-No	:	3017
Proper shipping name	:	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE, flash point 23°C or more (Chlorpyrifos and petroleum distillate)
Class(es)	:	6.1 (3)
Packing group	:	III

Label (s) : 6, 3, marine pollutant

## 15.0 REGULATORY INFORMATION

### 15.1 Risk and safety phrases in accordance with the Directive 2001/58/EC

Hazard Symbol	See section 2.1.1 and 2.2.2
R-Risk Phrases	See section 2.1.1 and 2.2.2
S-Safety Phrases	See section 2.1.1 and 2.2.2

### 15.2 Hazard and Precautionary statements in accordance with the regulation 1272/2008/EC

Pictograms and Signal Word Code(s)	See section 2.1.1 and 2.2.1
Hazard Statement Code(s)	See section 2.1.1 and 2.2.1

## 16.0 OTHER INFORMATION

### 16.1 Hazard symbols mentioned in section 3 in accordance with the Directive 2001/58/EC

Hazard symbols:



T – Toxic



N – Dangerous for the environment



F-Flammable



Xn-Harmful

### 16.2 Risk phrases mentioned in section 3 in accordance with the Directive 2001/58/EC:

R10	:	Flammable
R 25	:	Toxic if swallowed
R65	:	Harmful: may cause lung damage if swallowed
R37	:	Irritating to respiratory system
R 50	:	Very toxic to aquatic organisms
R66	:	Repeated exposure may cause skin dryness or cracking
R67	:	Vapors may cause drowsiness and dizziness
R51/53	:	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

### 16.3 Hazard symbols mentioned in section 3 in accordance with the regulation 1272/2008/EC



GHS06



GHS08



GHS09



GHS02

#### **16.4 Hazard statements mentioned in section 3 in accordance with the regulation 1272/2008/EC:**

H226	:	Flammable liquid and vapour
H301	:	Toxic if swallowed.
H304	:	May be fatal if swallowed and enters airways
H335	:	May cause respiratory irritation
H336	:	May cause drowsiness or dizziness
H400	:	Very toxic to aquatic life
H410	:	Very toxic to aquatic life, May cause long lasting harmful effects to aquatic life
H335	:	May cause respiratory irritation

#### **16.5 Further Information**

The information contained herein relates only to the specified material identified. AGROMECC, believes that such information is accurate and reliable as of the data of this material safety data sheet, but no representation, guarantee or warranty, expressed or implied, is made as to the accuracy, reliability, or completeness of the information. AGROMECC urges persons receiving this information to make their own determination as to the information's suitability and completeness for their particular application.

This material safety data sheet adopts the provisions of the European Commission Directive 2001/58/EC and Regulations 1272/2008 (CLP) and 453/2010 (REACH).