

## 1. Identification of the substance and of the company

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### GHS PRODUCT IDENTIFIER

Product name: Chlorophosphitylating Reagent

### OTHER MEANS OF IDENTIFICATION

Item number: 1028

Catalogue number(s): 1028-YZZZ, where Y=letters A-Z, ZZZ=numbers 000-999]

Brand: Not applicable.

### RECOMMENDED USE OF THE SUBSTANCE AND RESTRICTIONS ON USE

For laboratory and manufacturing use. Not for drug, household or other use.

### SUPPLIER'S DETAILS

Link Technologies Ltd	Tel: +44 (0) 1698 849911
3 Mallard Way	Fax: +44 (0) 1698 849922
Strathclyde Business Park	E-Mail: sales@linktech.co.uk
Bellshill	
Lanarkshire, ML4 3BF	
Scotland	

### EMERGENCY PHONE NUMBER

+44 (0) 1698 849911 (Monday to Friday 8 am to 6 pm)

## 2. Hazard identification

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### GHS CLASSIFICATION OF THE SUBSTANCE/MIXTURE

#### Classification according to Regulation (EC) No 1272/2008

Skin corrosion: Category 1B

#### Classification according to EU Directives 67/548/EEC or 1999/45/EC

Causes burns.

### GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS

Pictograms:



Signal Word

Danger

**Hazard Statements**

H314 Causes severe skin burns & eye damage  
EUH 014 Reacts violently with water

**Precautionary Statements**

P280 Wear protective gloves/eye protection/face protection.  
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P304 + P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P303 + P361 + P353 IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water/shower.  
P310 Immediately call a poison centre or a doctor.  
P405 Store locked up.  
P422 Store contents under inert gas.

**OTHER HAZARDS**

Reacts violently with water to produce acid vapours.

**3. Composition/information on ingredients**

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**COMMON NAME, SYNONYMS, ETC.**

Chlorophos

**CAS NUMBER AND OTHER UNIQUE IDENTIFIERS**

CAS number: 89992-70-1  
EC number: Not available.

**IMPURITIES AND STABILIZING ADDITIVES WHICH ARE THEMSELVES CLASSIFIED**

None known.

**4. First aid measures**

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**DESCRIPTION OF NECESSARY MEASURES****General advice**

Consult a doctor. Show this safety data sheet to the doctor in attendance.

**If inhaled**

Take the victim into open air; keep them warm and calm. If breathing is irregular or stops, perform artificial respiration. Do not administer anything orally. If unconscious, place them in a suitable position and seek medical assistance.

## **In case of skin contact**

Remove any contaminated clothing. Immediately remove any excess by the application of a dry wipe, or similar. Wash off with soap and plenty of water. Obtain medical attention. Do not use solvents or thinners.

## **In case of eye contact**

Flush eyes copiously with water for at least 15 minutes. Use a sterile eye wash if available. Obtain medical attention.

## **If swallowed**

Keep person calm and immobile. Seek immediate medical attention. Do not induce vomiting. Rinse mouth with water if conscious. Never give anything by mouth to an unconscious person.

## **MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED**

Corrosive product – contact with eyes or skin causes burns. Ingestion or inhalation can cause internal damage.

## **INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED, IF NECESSARY**

Seek immediate medical attention for any incident involving contact or ingestion.

## **5. Fire-fighting measures**

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### **SUITABLE (AND UNSUITABLE) EXTINGUISHING MEDIA**

Dry chemical or carbon dioxide. Water or foam are NOT suitable.

### **SPECIFIC HAZARDS ARISING FROM THE CHEMICAL (E.G. NATURE OF ANY HAZARDOUS COMBUSTION PRODUCTS)**

Carbon oxides, nitrogen oxides (NO<sub>x</sub>) and oxides of phosphorus. Combustion may release acidic fumes (hydrogen chloride gas).

### **SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS**

Wear self-contained breathing apparatus, if necessary.

### **FURTHER INFORMATION**

Use water spray to cool sealed containers.

## **6. Accidental release measures**

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### **PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES**

Wear protective clothing, respirator, chemical safety goggles, rubber gloves and rubber boots. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of acrid, highly acidic vapours.

## ENVIRONMENTAL PRECAUTIONS

Prevent product from entering drains or contaminating open ground.

## METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Contain spills using absorbent barriers where available. Collect absorbed material and place in container for disposal according to local regulations. For disposal information, see section 13.

## 7. Handling and storage

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### PRECAUTIONS FOR SAFE HANDLING

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition – no smoking. Take measures to prevent build-up of electrostatic charge.

### CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Containers should be kept sealed, upright and safely stored when not in use. Store in a cool, dry, well ventilated place.

Refrigeration at 4°C (or lower) is recommended.

## 8. Exposure controls/personal protection

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### CONTROL PARAMETERS (COMPONENTS WITH WORKPLACE CONTROL PARAMETERS)

This product does not contain substances with occupational exposure limits.

### APPROPRIATE ENGINEERING CONTROLS

General industrial laboratory hygiene practice. Use product within air-extracted fume hood wherever possible.

### INDIVIDUAL PROTECTION MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT

#### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Use of a faceshield is recommended.

#### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

#### Body Protection

A laboratory coat must be worn. Arms, legs and feet should be covered with suitable clothing and shoes.

Complete suit protecting against chemicals, flame retardant and antistatic, should be considered if handling large amounts, and dependent upon the specific circumstances of use.

**Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate, use a full-face respirator with multi-purpose combination (US) or type ABEK (EN14387) respirator cartridges as back-up to engineering control. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**9. Physical and chemical properties**

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Appearance (physical state, colour etc.):	Pale yellow, turbid, oily liquid
Odour:	No data available
Odour threshold:	No data available
pH:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	103°C @ 0.08 mmHg
Flash point:	110°C
Evaporation rate:	No data available
Flammability (solid, gas):	No data available
Upper/lower flammability or explosive limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Relative density:	1.061 g/ml at 25°C
Water Solubility:	Reacts violently
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	No data available
Explosive properties:	No data available
Oxidising properties:	No data available
Empirical formula:	C <sub>9</sub> H <sub>18</sub> ClN <sub>2</sub> OP
Molecular weight (g/mol):	236.68

**10. Stability and reactivity****REACTIVITY**

No data available.

**CHEMICAL STABILITY**

Stable under recommended storage conditions.

**POSSIBILITY OF HAZARDOUS REACTIONS**

Reacts violently with water and alcohols.



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## CONDITIONS TO AVOID (E.G. STATIC DISCHARGE, SHOCK OR VIBRATION)

Damp or humid conditions. Extremes of temperature and direct sunlight.

## INCOMPATIBLE MATERIALS

Water, protic solvents, oxidising agents, reducing agents, bases, strong acids. Alkali metals.

## HAZARDOUS DECOMPOSITION PRODUCTS

Hydrogen chloride, carbon oxides, nitrogen oxides (NO<sub>x</sub>) and oxides of phosphorus in the event of fire.

## 11. Toxicological information

### TOXIC EFFECTS

Acute toxicity:	No data available
Skin corrosion/irritation:	No data available
Serious eye damage/irritation:	No data available
Respiratory or skin sensitization:	No data available
Germ cell mutagenicity:	No data available
Carcinogenicity:	No component of this mixture is identified as probable, possible or confirmed human carcinogen by IARC
Reproductive toxicity:	No data available
STOT-single exposure:	No data available
STOT-repeated exposure:	No data available
Aspiration hazard:	No data available

### INFORMATION ON THE LIKELY ROUTES OF EXPOSURE

Exposure via inhalation, ingestion, skin and eye contact - data on the health effects of such exposure is not available.

### SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS

Causes burns and blistering on contact. Destructive to mucous membranes. Other symptoms may include cough and shortness of breath, nausea.

### DELAYED AND IMMEDIATE EFFECTS AND ALSO CHRONIC EFFECTS FROM SHORT AND LONG TERM EXPOSURE

No data available.

### NUMERICAL MEASURES OF TOXICITY (SUCH AS ACUTE TOXICITY ESTIMATES)

No data available.



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## 12. Ecological information

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### TOXICITY

No data available.

### PERSISTENCE AND DEGRADABILITY

No data available.

### BIOACCUMULATIVE POTENTIAL

No data available.

### MOBILITY IN THE SOIL

No data available.

### OTHER ADVERSE EFFECTS

No data available.

## 13. Disposal Considerations

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### DISPOSAL METHODS

For the safety of persons conducting disposal, recycling or reclamation activities, please refer to the information in section 8 of the SDS. Dispose by incineration at high temperature in an approved incinerator fitted with appropriate environmental protection equipment. Contaminated packaging should be treated as product. Dispose of in accordance with all applicable Local, National, State and Federal regulations. Labels should not be removed from containers until they have been thoroughly cleaned in an appropriate manner. Containers should not be treated as domestic waste and disposed of appropriately. Always use an approved disposal company. Do not dispose to drains.

## 14. Transport information

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### UN number

ADR/RID: 1760                      IMDG: 1760                      IATA: 1760

### UN proper shipping name

ADR/RID: Corrosive Liquid, N.O.S.

IMDG: Corrosive Liquid, N.O.S.

IATA: Corrosive Liquid, N.O.S.

### Transport hazard class(es)

ADR/RID: 8                      IMDG: 8                      IATA: 8

### Packing group

ADR/RID: III                      IMDG: III                      IATA: III



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## Environmental hazards

IMDG Marine Pollutant: No  
ADR/RID: No  
IATA: No

## Special precautions for the user

No data available

## 15. Regulatory information

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This safety datasheet complies with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), Fourth revised edition, 2011.

No further safety, health and environmental regulations specific for the product in question are available.

For this product a chemical safety assessment was not carried out.

## 16. Other information

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Last Revision Date: No revisions.

Revision history: No revisions.

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