

**Safety data sheet as per COMMISSION REGULATION (EU) No 453/2010  
of 20 May 2010 amending Regulation (EC) No 1907/2006  
Product: Additiv 2030**



**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1 Product identifier**

**Trade name: Phosphorodithioic acid,O,O-di-C1-14-alkyl esters, zinc salts/ Additiv 2030**

**CAS No.:** 68649-42-3

**EC No.:** 272-028-3

**Pre-Registration number** 17-2119391155-38-0000

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

**Relevant identified uses:** Anti-wear additives to lubricants such as greases, gear oils, and motor oils; corrosion inhibitors and antioxidants.

**Sector of use:** SU 3 industrial uses

**Environmental release category:** Manufacture (ERC1) and formulations (ERC2)

**Uses identified against:** Food additive, medicinal products

**1.3 Details of the supplier of the safety data sheet:**

**Manufacturer/Supplier:**

Prasol Chemicals Ltd.,  
Prasol House, Plot No.A-17/2/3,  
T.T.C. Indl. Area, Khairne M.I.D.C.,  
Navi Mumbai - 400 710.  
Maharashtra, India.  
Tel: +91-22-27782555  
Fax: +91-22-27782430

**Further information obtainable from:**

Mr. Dhaval Parikh

e-mail:sales@prasolchem.com; inquiry@prasolchem.com

**1.4 Information in case of emergency:**

Product safety department Tel: +91-22- 27782555; Fax:+91-22- 27782430

Other Comments (e.g. language(s) of the phone service): English

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

**2.1.1 Classification according to Regulation (EC) No 1272/2008(CLP)**



GHS05

Corrosion



GHS07

Exclamation



GHS09

Environment

Skin Irrit. 2 H315 Causes skin irritation

Eye Dam. 1 H318 Causes serious eye damage

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects

**2.1.2 Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xi; Irritant



N; Dangerous for the environment

R36/38: Irritating to eyes and skin

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

**Information concerning particular hazards for human and environment:** Not applicable

**2.2 Label elements**

**Labeling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the CLP regulation

**Hazard pictograms**



GHS05

Corrosion



GHS07

Exclamation



GHS09

Environment

**Signal word** Danger

**Hazard-determining components of labeling:** Void

**Safety data sheet as per COMMISSION REGULATION (EU) No 453/2010  
of 20 May 2010 amending Regulation (EC) No 1907/2006**

**Product: Additiv 2030**



**Hazard statements**

H315 Causes skin irritation

H318 Causes serious eye damage.

H411 Toxic to aquatic life with long lasting effects

**Precautionary statements**

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 Immediately call a POISON CENTER or doctor/physician.

P321 Specific treatment (see on this label).

P362 Take off contaminated clothing and wash before reuse.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations

**2.3 Other hazards**

**Results of PBT and vPvB assessment** Not applicable

**SECTION 3: Composition/information on ingredients**

**Chemical characterization:**

**CAS No.** Description  
68649-42-3 Phosphorodithioic acid,O,O-di-C1-14-alkyl esters, zinc salts

**Identification number(s)**

**EC Number:** 272-028-3

**Additional information:**

**Molecular Formula:** proprietary

**Molecular Weight:** proprietary

**SECTION 4: First aid measures**

**4.1 General information:** Immediately remove any clothing soiled by the product. Seek immediate medical advice.

**After inhalation:** Remove from exposure area to fresh air immediately. Keep at rest in a position comfortable for breathing. If breathing has stopped, give artificial respiration. GET MEDICAL ATTENTION

**After skin contact:** With soap and water. Seek medical attention if tissue appears damaged or if irritation persists. Thoroughly clean contaminated clothing before reuse. Discard contaminated leather goods

**After eye contact:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek medical attention if excessive tearing, redness, or pain persists

**After swallowing:** Rinse mouth with water. Unless directed to by a physician. Never give anything by mouth to a person who is not fully conscious. Seek medical attention immediately

**4.2 Most important symptoms and effects, both acute and delayed** Dilation of pupils

**4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

**SECTION 5: Firefighting measures**

**5.1 Suitable extinguishing media:** On large fires use dry chemical, foam or water spray. On small fires use carbon dioxide (CO<sub>2</sub>), dry chemical or water spray.

**For safety reasons unsuitable extinguishing agents:** Water with full jet

**5.2 Special hazards arising from the substance or mixture** No further relevant information available.

**5.3 Advice for firefighters:** Fire fighters should wear positive self-contained breathing apparatus or gas tight chemical resistant suits.

**SECTION 6: Accidental release measures**

**6.1 Person-related safety precautions:**

Ensure adequate ventilation. Stop or control the leak, if this can be done without undue risk. Avoid contact with skin and eyes. Use full protective clothing and equipment. Transfer bulk of material into another container. Absorb with inert material such as earth, sand, or vermiculite.

**Safety data sheet as per COMMISSION REGULATION (EU) No 453/2010  
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**Product: Additiv 2030**



**6.2 Measures for environmental protection:**

Do not allow product to reach sewage system or any water course.

**6.3 Measures for cleaning/collecting:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Keep in suitable, closed containers for disposal. Clean up all spills immediately.

**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 disposal information

## **SECTION 7: Handling and storage**

### **7.1 Precautions for safe handling**

Avoid contact with eyes and skin. Use in a well-ventilated area.

Prevent concentration in hollows and sumps.

DO NOT enter confined spaces until atmosphere has been checked.

**Information about fire and explosion protection:** Avoid smoking, naked lights or ignition sources.

### **7.2 Conditions for safe storage, including any incompatibilities**

**Requirements to be met by storerooms and receptacles:**

Store in a cool, dry, well-ventilated area away from incompatible substances.

**Information about storage in one common storage facility:** Store away from oxidizing agents.

**Further information about storage conditions:** Maximum Storage Temperature: 38 °C (100°F)

**7.3 Specific end use(s):** No further relevant information available

## **SECTION 8: Exposure controls/personal protection**

### **8.1 Control parameters**

**Additional information about design of technical facilities:**

Provide adequate ventilation in warehouse or closed storage areas.

**Ingredients with limit values that require monitoring at the workplace:** Not required.

### **8.2 Exposure controls**

**Personal protective equipment:**

**General protective and hygienic measures:**

Wash hands before breaks and at the end of work.

Immediately remove all soiled and contaminated clothing

Avoid contact with the eyes and skin.

**Protection of hands:** Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves:** Plastic/Rubber gloves

**Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:** Safety glasses with side shields; Chemical goggles.

Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants

**Body protection:** Protective work clothing.

## **SECTION 9: Physical and chemical properties**

### **9.1 Information on basic physical and chemical properties**

**Appearance** : Colorless to pale brown liquid

**Odour** : Mild petroleum odor

**Odour threshold** : no data available

**pH** : 5.5-7.5

**Melting point/Melting range** : not determined (liquid, pour point -10°C)

**Boiling point/Boiling range** : not determined (decomposes before boiling)

**Flash point** : ≥110°C

**Safety data sheet as per COMMISSION REGULATION (EU) No 453/2010  
of 20 May 2010 amending Regulation (EC) No 1907/2006**

**Product: Additiv 2030**



<b>Evaporation rate</b>	: not established
<b>Flammability</b>	: not determined
<b>Upper/lower flammability or explosive limits</b>	: not determined
<b>Vapor pressure at 25°C</b>	: very low, ~0
<b>Vapour density</b>	: not determined
<b>Density at 20°C</b>	: 1.10-1.15 g/ml
<b>Solubility in / Miscibility with water</b>	: Insoluble
<b>Partition coefficient (n-octanol/ water)</b>	: log Kow 3.9 at 25°C
<b>Auto-ignition temperature</b>	: 250°C
<b>Decomposition temperature</b>	: Not determined
<b>Viscosity (kinematic) at 100°C</b>	: 10.0-13.0 cSt
<b>Explosive properties</b>	: not explosive
<b>Oxidizing properties</b>	: No oxidizing properties
<b>9.2 Other information</b>	No further relevant information available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

**10.2 Chemical stability** Stable under normal conditions.

**10.3 Possibility of hazardous reactions** When handled and stored appropriately, no dangerous reactions are known.

**10.4 Conditions to avoid** Keep away from excess heat

### 10.5 Incompatible materials:

Strong oxidizing agents

Strong oxidizers such as hydrogen peroxide, bromine, and chromic acid.

**10.6 Hazardous decomposition products:** smoke, carbon dioxide and carbon monoxide

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity:

LD50 oral rat >2000 mg/kg

Inhalation not determined

Dermal not classified (low toxicity)

**Skin corrosion/irritation:** irritating Category 2

**Serious eye damage/irritation:** Strong irritant with the danger of severe eye injury Category 1

**Respiratory or skin sensitization:** No sensitizing effects known

**Germ cell mutagenicity:** not determined

**Carcinogenicity:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC

**Reproductive toxicity:** not determined

**STOT-single exposure:** irritating to eye and skin

**STOT-repeated exposure:** not determined

**Aspiration hazard:** not determined

**Additional information:** To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Aquatic toxicity:

LL50 96 h 4.5 mg/L *Oncorhynchus mykiss*

EL50 48h 23 mg/L *Daphnia magna*

IC50 21d >0.53 mg/L *Daphnia magna*

EbL50 72h 21 mg/L *Scenedesmus subspicatus* (algae)

EC50 3h >10,000 mg/L activated aludge

**12.2 Persistence and degradability** Not readily biodegradable.

**12.3 Bio-accumulative potential** low bioaccumulation potential.

**Safety data sheet as per COMMISSION REGULATION (EU) No 453/2010  
of 20 May 2010 amending Regulation (EC) No 1907/2006  
Product: Additiv 2030**



**12.4 Mobility in soil** The product is poorly absorbed onto soils or sediments.

**Additional ecological information:**

**General notes:** Harmful to aquatic organisms

The material is harmful to the environment.

Do not allow product to reach ground water, water course or sewage system.

**12.5 Results of PBT and vPvB assessment** Not applicable

**12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

**Recommendation** Dispose in a regulated landfill site or other method for hazardous or toxic waste.

**European waste catalogue** Not available

**Contaminated packaging:**

**Recommendation:** Dispose off according to local, state, and federal governmental restrictions and requirements

### SECTION 14: Transport information

**Land Transport (ADR/RID)      Marine Transport (IMDG)      Air Transport (ICAO/ IATA)**

**14.1 UN/ID Number:** 3082

**14.2 UN proper shipping name** 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts)

**14.3 Transport hazard class** 9 Miscellaneous dangerous substances and articles

**14.4 Packaging group:** III

**14.5 Environmental hazards:** marine pollutant (P)

**14.6 Special precautions for the user:** symbol fish and tree

**Danger code (Kemler):** 90

**EMS Number:** F-A

**ADR Limited quantities (LQ)** 5L

**Transport category** 3

**Tunnel restriction code** E

**14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable

### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety datasheet complies with the requirements of COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006

**Hazard pictograms** Please refer section 2

**Signal word** Danger

**Hazard statements** Please refer section 2

**Precautionary statements** Please refer section 2

**Labeling according to EU guidelines:** The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

**Code letter and hazard designation of product:** please refer Section 2

**Risk phrases:** please refer Section 2.

**15.2 Chemical safety assessment** A Chemical Safety Assessment has not been carried out and shall be available at the time of REACH registration

**Substances of very high concern (SVHC) according to REACH, Article 57**

The substance is not listed as SVHC.

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Department issuing MSDS:**

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of 20 May 2010 amending Regulation (EC) No 1907/2006  
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Product safety department.

**Contact:**

Tel: +91-022-27782555

Fax: +91-022-27782430

**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

CAS: Chemical Abstracts Service (division of the American Chemical Society)

EbL50: effective loading rate that causes 50% reduction in algal cell biomass

EC50: half minimal effective concentration

EINECS/ EC: European Inventory of Existing Commercial Chemical Substances

EL50: effective loading rate lethal to 50% of the test population

EMS Number: Emergency Schedule Number

GHS: Globally Harmonized System of Classification and Labeling of Chemicals

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

IMDG: International Maritime Code for Dangerous Goods

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

LL50: Lethal load, 50 percent

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

**Sources**

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/ EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

EPA:<http://www.epa.gov/hpv/pubs/summaries/zincdial/c14066rt2.pdf>

CHEMIDPLUS:<http://chem.sis.nlm.nih.gov/chemidplus/rn/68649-42-3>

ACTOR:[http://actor.epa.gov/actor/GenericChemicalPdfServlet.jsessionid=9ED96F20B45B9A18EF1A552D4A42B430?ca\\_srn=68649-42-3](http://actor.epa.gov/actor/GenericChemicalPdfServlet.jsessionid=9ED96F20B45B9A18EF1A552D4A42B430?ca_srn=68649-42-3)

**Data compared to the previous version altered.**

- Section 1: Identification of the substance/mixture and of the company/undertaking
- Section 2: Hazard Identification
- Section 3: Composition/information on ingredients
- Section 4: First-aid measures.
- Section 5: Fire-fighting measures
- Section 6: Accidental Release measures
- Section 7: Handling and storage.
- Section 8: Exposure Controls/Personal protection.
- Section 9: Physical and Chemical properties.
- Section 10: Stability and Reactivity.
- Section 11: Toxicological Information.
- Section 12: Ecological Information.
- Section 13: Disposal consideration
- Section 14: Transport information
- Section 15: Regulatory information