

Safety data sheet as per Commission Regulation (EU) 2020/878

Product: Additiv 730



SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name Additiv 730
Chemical Name Zinc dialkyl dithiophosphate (ZDDP)

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

Relevant identified uses Industrial use: Lubricant additive; Anti-wear additives to lubricants such as greases, gear oils, and motor oils; corrosion inhibitors and antioxidants, as a vulcanization additive in production of tyres and rubber products
Professional use: Used in manufacture of lubricants and greases in vehicles and machinery
Consumer use: Lubricants and greases
Uses identified against Food additive, medicinal products, cosmetic products

1.3 Details of the supplier of the safety data sheet:

Manufacturer Prasol Chemicals Limited
Prasol House, PlotNo.A-17/2/3,
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NaviMumbai-400710.
Maharashtra, India.
Telephone +91-22-69450600/ 61952500
Telefax +91-22-61952577
e-mail address sales@prasolchem.com; inquiry@prasolchem.com

1.4 Emergency telephone number

Telephone +91-22-7045783555/ 7045790555
Language English

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No1272/2008 (CLP)

Skin Irritation	Category 2	H315	Causes skin irritation
Eye Damage	Category 1	H318	Causes serious eye damage
Aquatic Chronic	Category 2	H411	Toxic to aquatic life with long lasting effects

Information concerning particular hazards for human and environment: No further information

2.2 Label elements

Labeling according to Regulation (EC) No1272/2008 (CLP)

Hazard
pictograms



GHS05



GHS09

Signal word Danger

Hazard statements	H315	Causes skin irritation
	H318	Causes serious eye damage
	H411	Toxic to aquatic life with long lasting effects

Precautionary statements

General	P103	Read label before use.
Prevention	P264	Wash hands thoroughly after handling.
	P273	Avoid release to the environment.
	P280	Use protective gloves and eye protection.
Response	P302+P352	IF ON SKIN: Wash with plenty of water.
	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 doctor.
	P321	Specific treatment: wash with plenty of water and mild soap.
	P332 + P313	If skin irritation occurs: Get medical attention.
	P362+P364	Take off contaminated clothing and wash it before reuse.
	P391	Collect spillage

Storage -

Disposal P501 Dispose of contents and container in accordance with national regulations

2.3 Other hazards

Not a PBT, vPVB substance according to the criteria of Annex XIII to REACH regulation

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Not having endocrine disruptive properties as per criteria of Delegated Regulations (EC) 2017/2100 or (EC) 2018/605

SECTION 3: COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substances

Name	Zinc di(alkyl)dithiophosphate (ZDDP)
IUPAC Name	Dialkyl, O,O-diester with phosphorodithioic acid, zinc salt
CAS No.	68649-42-3
EC No.	272-028-3
Molecular Formula	not applicable (UVCB)
Molecular Weight	not applicable (UVCB)

Ingredient	Classification	Concentration (%)	SCL, M-factor, ATE
Zinc di(alkyl) dithiophosphate	Skin Irrit. 2, Eye Dam. 1, Aq. Chr. 2 H315, H318, H411	80-100	M(Chronic)=0

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no other ingredients present, which are classified as hazardous and hence require reporting in this section.

None of the ingredients present are classified as skin sensitisers 1A, respiratory sensitisers 1A, aspiration hazards and endocrine disruptors.

3.2 Mixtures not applicable

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General information

Symptoms of poisoning may only appear several hours later. When symptoms persist or in all cases of doubt seek medical advice. Remove from exposure, lie down. Never give anything by mouth to an unconscious person. After inhalation of vapours during processing, remove the patient to fresh air at once.

After inhalation

After skin contact

Take off all contaminated clothing immediately. If symptoms persist, call a physician. Wash off immediately with soap and plenty of water.

After eye contact

After swallowing

Rinse immediately with plenty of water and seek medical advice.

Do not induce vomiting and seek medical advice immediately.

4.2 Most important symptoms and effects, both acute and delayed

May cause eye damage, skin and respiratory irritation, burns to mouth, throat and stomach if ingested

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

CO₂, dry powder, foam

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

May form toxic sulfur dioxide and carbon oxides if burning.

Closed container may rupture if strongly heated. Combustible liquid.

Explosive mixtures may occur at temperatures at or above the flashpoint.

5.3 Advice for firefighters

Cool closed containers exposed to fire with water spray.

Wear self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment.

Avoid breathing vapours, mist or gas during processing.

Ensure adequate ventilation

6.2 Environmental precautions

Do not allow to enter sewers, surface or ground water.

6.3 Methods and material for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

Suitable binder: sand

6.4 Reference to other sections

Section 8 for information on personal protection equipment.

Section 13 for disposal information

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SECTION 7: HANDLING AND STORAGE

- 7.1 Precautions for safe handling** If possible, use material transfer, metering and blending plants that are closed. Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Empty containers retain product residue and can be hazardous. Do not reuse container. Maximum Handling Temperature 70 °C
- 7.2 Conditions for safe storage, including any incompatibilities**
Advice on protection against fire and explosion Follow normal measures for preventive fire protection.
Storage German storage class: 10 - Combustible liquids. Store in a cool place. Keep container tightly closed in a dry and well-ventilated place. Mechanical exhaust required. Observe prohibition against storing together!
Advice on common storage
Storage stability Maximum Storage Temperature: 45°C
- 7.3 Specific end use(s)** No further relevant information available

SECTION 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION

- 8.1 Control parameters**
Occupational Exposure Limit Contains no substances with occupational exposure limit values.
- 8.2 Exposure controls**
Appropriate engineering controls If possible, use material transfer, metering and blending plants that are closed
Personal protective equipment
Eye/ face protection closed goggles, face shield
Skin protection Type of material Thickness Breakthrough time
Hand protection Butyl-rubber 0.5 mm > 480 min
Polychloroprene (PCP) 0.5 mm 110 min
Body protection Boots, body suit
Respiratory protection Not required; except in case of aerosol formation. Avoid inhaling vapours.
Thermal hazards Combustible liquid, possibility of decomposition on excess heating
Industrial hygiene Avoid contact with skin and eyes. Remove immediately all contaminated clothing. Keep working clothes separately. Smoking, eating and drinking should be prohibited in the application area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 Information on basic physical and chemical properties**
Physical state Liquid
Color Colorless to pale brown
Odour characteristic of sulfur-containing compounds
Odour threshold no data available
pH 5.5-7.5
Melting point not determined (liquid; pour point -21°C)
Boiling point not determined (decomposes before boiling)
Flash point 143°C (closed cup)
Evaporation rate not determined
Flammability (solid, gas) not applicable (product is a liquid)
Flammability limits no data available
Vapour pressure 0.078Pa at 25°C
Vapour density not determined
Relative density 1.15 at 15.6°C
Solubility in water 54.2 mg/L at 20°C, pH 5.6
Partition coefficient 1.67 log Pow (n-octanol/water) at 20°C
Ignition temperature 242°C
Decomposition temperature 215°C
Viscosity at 100 °C 10 cSt
Particle characteristics Not applicable (substance is a liquid)
- 9.2 Other information**
Surface tension 64.6mN/m at 21.4°C. The substance is not a surface-active material.
Explosive properties no explosive properties based on chemical structure
Oxidizing properties no oxidizing properties based on chemical structure

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SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	No hazardous reaction when handled and stored according to provisions.
10.2 Chemical stability	Under storage at normal ambient temperatures (-40°C to +45°C), the product is stable. Decomposition temperature 215°C
10.3 Possibility of hazardous reactions	Spontaneous decomposition may start at 150°C.; After prolonged heating, slow decomposition may start at above 80°C.
10.4 Conditions to avoid	Extremes of temperature and direct sunlight.
10.5 Incompatible materials	Keep away from reducing agents, oxidising agents, acids and bases.
10.6 Hazardous decomposition products	Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion. Hydrogen sulfide and alkyl mercaptans and sulfides may also be released. Under combustion conditions, oxides of the following elements will be formed: phosphorus, sulfur, zinc.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects	
Acute toxicity	
LD50 oral rat	2000-5000 g/kg bw Category 5
LD50 Dermal rabbit	>2.002 mg/kg bw not classified
Skin irritation	Irritating 24h (rabbit); Category 2; H315
Serious eye irritation	Irritating 24h (rabbit); Category 1; H318 (irreversible effects on the eye)
Respiratory or skin sensitization	Not a skin sensitizer
Germ cell mutagenicity	non mutagenic (Ames test)
Carcinogenicity	no data available
Reproductive toxicity	NOAEL 30 mg/kg/day (rat)
STOT-single exposure	irritating to eye and skin;
STOT-repeated exposure	not classified as specific target organ toxicant NOAEL 160 mg/kg bw/day; rat (oral)
11.2 Information on other hazards	
Endocrine disrupting properties	No endocrine disrupting properties
Other information	No further information

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity	
Aquatic toxicity	
Toxicity to fish	LC50 96h 4.5mg/L <i>Oncorhynchus mykiss</i>
Toxicity to aquatic invertebrates	LC50 48h 23 mg/L <i>Daphnia magna</i>
Toxicity to aquatic algae and cyanobacteria	EC50 72h 21 mg/L <i>Desmodesmus subspicatus</i>
Toxicity to microorganisms	EC50 3h >10,000mg sewage, domestic
12.2 Persistence and degradability	
Biodegradation	not readily biodegradable (1.5% in 28days) Aq. Chr. Cat 2 H411
12.3 Bioaccumulative potential	Bioconcentration factor <1000L/Kg very low potential for bioaccumulation
12.4 Mobility in soil	log Pow = 1.67
12.5 Results of PBT and vPvB assessment	Not a PBT, vPvB substance according to the REACH regulation
12.6 Endocrine disrupting properties	No endocrine disrupting properties
12.7 Other adverse effects	Harmful to aquatic organisms The material is harmful to the environment

SECTION 13: Disposal considerations

13.1 Waste treatment methods	Observe all national, state and local environmental regulations.
Product disposal	Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
Packaging disposal	Clean container with water. Recover waste water for processing later. Destroy packaging by incineration at an approved waste disposal site.
Sewage disposal	Do not dispose in sewage.

SECTION 14: TRANSPORT INFORMATION

	ADR/RID	IMDG	ICAO/IATA
14.1 UN Number	3082	3082	3082

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14.2	UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (MIXTURE, CONTAINS ZINC DIALKYL DITHIOPHOSPHATE)		
14.3	Transport hazard class	9	9	9
14.4	Packaging group	III	III	III
14.5	Environmental hazards	environmentally hazardous, marine pollutant		
14.6	Special precautions for the user	Combustible liquid; Flash point 140°C (closed cup) Environmentally hazardous substance. Marine pollutants. Irritating to the eyes. Keep dry. Keep separated from foodstuffs		
	EmS Number	F-A (S-F)		
14.7	Maritime transport in bulk according to IMO instruments	Ship type: 2; Pollution Category: Y		

SECTION 15: Regulatory information

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

Major accident hazard Seveso III no

International Chemical Inventory Status

USA (TSCA) listed
Canada (DSL) listed
Australia (AICS) listed
Japan (MITI) listed
Korea (KECL) listed
Philippines (PICCS) listed
China listed
New Zealand listed
Taiwan listed

15.2 Chemical safety assessment A Chemical Safety Assessment will be carried out at the time of REACH registration

SECTION 16: OTHER INFORMATION

Indication of changes: Sections in which changes have been made since the last version are marked with a diamond ♦ in the left hand margin.

Abbreviations and acronyms:

ADR European Agreement concerning the International Carriage of Dangerous Goods by Road
AICS Australian Inventory of Chemical Substances
ATE Acute Toxicity Estimate
CAS Chemical Abstracts Service (division of the American Chemical Society)
CLP Classification for Labeling and Packaging
DMEL Derived minimal effect level
DNEL Derived No-Effect Level
DSL Domestic Substances List
EC European Commission
EC50 Half maximal effective concentration
EINECS European Inventory of Existing Commercial Chemical Substances
GHS Globally Harmonized System of Classification and Labeling of Chemicals
IATA International Air Transport Association
IBC International Bulk Chemical
ICAO International Civil Aviation Organization
IMDG International Maritime Code for Dangerous Goods
KECL Korea Existing Chemicals List
LC50 Lethal concentration, 50 percent
LD50 Lethal dose, 50 percent
M-factor Multiplication Factor
MITI Ministry of International Trade and Industry
NOAEL No Observed Adverse Effect Level
PBT Persistent, bioaccumulative and toxic substances
PICCS Philippine Inventory of Chemicals and Chemical Substances
PNEC Predicted No-Effect Concentration

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RID	Regulations Concerning the International Transport of Dangerous Goods by Rail
SCL	Specific concentration limit
STOT	Specific target organ toxicity
TSCA	Toxic Substances Control Act
UN	United Nations
vPVB	(very) Persistent, (very) Bioaccumulative

Key literature references and sources for data

Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH))

ECHA CHEM <https://chem.echa.europa.eu/100.065.461/overview>

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End of safety data sheet