

According to the 67/548/EEC and 2001/58/EC directives and ISO 11014-1 norm.

1. IDENTIFICATION OF SUBSTANCE AND OF THE COMPANY

Trade name : ZINC PHOSPHATE

Type of use : anticorrosive pigment (solid corrosive inhibitor).

Manufacturer : SOCIETE NOUVELLE DES COULEURS ZINCIQUES

Plant
BP 59
59111 Bouchain
FRANCE

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45/49 Chaussée Jules César
95250 Beauchamp
FRANCE

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E.mail : sncz@sncz.net

Europe emergency contact : INT + 33 1 30 40 57 57 (France).
24-hour emergency number (USA) : 800 424 9300 (CHEMTREC - USA).
24-hour international emergency number : INT + 1 703 527 3887 (CHEMTREC - USA).


2. COMPOSITION/DATA ON COMPONENTS

Chemical composition : Zinc Phosphate
 $Zn_3(PO_4)_2, x H_2O \quad 2 \leq x \leq 4$

White 32 pigment - Colour Index 77964
CAS n° : 7779-90-0 **EINECS n°**: 231-944-3

<u>N° CAS</u>	<u>Name</u>	<u>%</u>	<u>Symbol</u>	<u>Phrases</u>
7779-90-0	$Zn_3(PO_4)_2, x H_2O$	> 99.9	N	R50/53

3. HAZARD IDENTIFICATION

Danger :  Dangerous for the environment.
N

Labelling according to 67/548/EEC and 1999/45/EC regulations : R50/53.

Environmental Risk : this substance is very dangerous to aquatic organisms. It is highly recommended not to allow this product to enter the Environment. This product may cause long-term adverse effects.

4. FIRST AID AND MEASURES

Specific measure: no specific requirements.

After inhaling : remove from exposure area to fresh air. Seek medical attention.

After skin contact : wash with mild soap and water until no evidence of substance remains.

After eyes contact : immediately flush eyes with water for at least 15 min, until no evidence of chemical remains. Seek medical attention if necessary.

Ingestion : immediately get medical attention. Treat symptomatically and supportively. This substance may induce intestinal troubles.

5. FIRE FIGHTING MEASURES

Suitable extinguishing means : no restriction.

Specific hazards : no danger (not flammable substance).

Special personal protection equipment : wear an appropriate air respirator.

Conduct of fire fighting : no specific requirement (not flammable fire retardant). Avoid creating dust under nuisance dust permitted limits.. In case of fire, residues may contaminate the environment and have to be collected and stocked in special containers. Dike fire-control water for later disposal.

Additional information : contaminated residues must be disposed of according to local regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal protective measures : if dusting (upper permitted limits) mask with a high-efficiency particulate filter and with a full face-piece.

Environmental protection conduct : do not sweep or wash in public stretches of water or unknown discharge, in respect with local regulations.

Spill and leak procedure : use wet clean up technique to avoid dusting. Keep covered material in watertight and closed containers. Suck up avoiding dust (vacuum or wet device). Avoid residues according to local regulations.

7. HANDLING AND STORAGE

Handling : do not breathe dust. Keep away from food stuff. Use adequate exhaust ventilation to maintain nuisance dust below permitted limits.

Protection against fire and explosion : the product is non-flammable.

Storage conditions : store under clean, dry conditions at room temperature. Keep containers tightly sealed.

Material/Chemical incompatibility : none. However, it is recommended to store this substance away from acids and ammonia (solubility in these solvents). Storage class (VCI, Germany) : 13. Seveso II Directive applies if a total sum of 200 tons environmentally dangerous substances and preparations in production and storage is exceeded.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limit Value (Occupational Exposure Limits) :

Engineering controls : no specific exposure limits established for substance (OSHA, ACGIH, NIOSH). Cf §7.

Exposure limits :

<u>Designation</u>	<u>Type of Data</u>	<u>Unit</u>
Dust nuisance	(ACGIH-91/93)	
	TLV : TWA (USA)	10 mg/m ³
	MAK (Germany)	6 mg/m ³ Valid as per (mm/yy) : 05 / 95

Exposition control :

PERSONAL PROTECTIVE EQUIPMENT

Respiratory protection : adapted dust mask while handling the powder. If possible, use a full face piece mask (upper permitted limits) when dust occurs.

Hand protection : use gloves during handling.

Eye protection : safety glasses with side shields.

Other protective equipment/recommendations : observe good personal hygiene. Keep away from food stuff, drinks on the site.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : solid, fine powder
Appearance : white powder
Odour : odourless

Change in physical state

<u>Dehydration</u>	<u>Melting</u>	<u>Decomposition</u>
80 - 600°C for tetrahydrated zinc phosphate	900° C	none as long as properly used.
120 - 600°C for trihydrated zinc phosphate	900° C	none as long as properly used.
160 - 600°C for dihydrated zinc phosphate	900° C	none as long as properly used.

Flash point : not applicable.
Flammable properties : not combustible, fire retardant.
Explosion risk : not applicable.
Vapour pressure (20°C) : not applicable.
∇ Specif gravity : 3.3 – 3.4 g/cm³ ISO 787/10
Solubility (water 20°C) : 0.03 g/l.
pH (20°C) : 6 - 8 ISO 787/9

10. STABILITY AND REACTIVITY

Hazardous decomposition products : no hazardous decomposition product in normal storage conditions.

11. TOXICOLOGICAL PROPERTIES**Acute toxicity**

LD 50 mouse intraperitoneal : 522 mg/kg.
LD 50 oral (rat): > 5 000 mg/kg.

Local effects : human, none.
Sensitisation to product : human, none.
Chronic toxicity : human, none.
Long term toxicity : human, none.
Carcinogenicity : human, none.
Teratogenicity : human, none.
Mutagenicity : human, none.
Irritating effect : human, none.

This product is not hazardous for the human being when used properly.

12. ECOLOGICAL INFORMATION**Ecotoxicity** :

Acute toxicity for fish (<i>Oncorhynchus mykiss</i>)	LC50 (96 h)	0.14 – 2.6 mg Zn ²⁺ /l.
Acute toxicity for crustacea (<i>Daphnia magna</i>)	EC50 (48 h)	0.04 – 0.86 mg Zn ²⁺ /l.
Acute toxicity for algae (<i>Selenastrum capricornutum</i>)	EC50 (72 h)	0.136– 0.150 mg Zn ²⁺ /l.

Mobility : do not mix with waste waters.

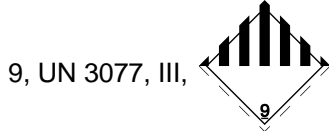
Persistence/degradability : not bio-degradable. The solubility of Zn²⁺ was tested according to the Council Directive 67/548/EEC, Annex V, part C, C1 Acute Toxicity for Fish, and C2 Acute Toxicity for Daphnia, (ISO 6341) by dispersing 10 g Zinc Phosphate PZ20 in 1 l prepared water, stirring for 24 hours, filtration over 0.45 µm membrane filter and ICP determination of Zn. This test resulted in a solubility finding for water soluble Zn²⁺ of 25 mg Zn²⁺/l.

13. DISPOSAL

Material : dispose in accordance with local environmental regulations

* this substance does not meet the definition of a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

Contaminated package and containers : empty bags can be either destroyed, or recycled according to the international norms that apply. Spoiled and unclean packaging is regulated by the ADR.

14. TRANSPORT INFORMATIONÑ **ADR** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ZINC PHOSPHATE),Ñ **IMDG** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ZINC PHOSPHATE),Ñ **IATA** : Environmentally hazardous substance, solid, n.o.s. (zinc phosphate), 9, UN 3077, III

Packing instruction : Y911 only for Limited Quantities and gross weight < 30 kg, or 911.

15. REGULATORY INFORMATION

This substance is subjected to labelling in accordance with the 67/548/EEC and 1999/45/EC directives. This substance is quoted in the corrigendum to 2004/73/EC of 29 April 2004 adapting to technical progress for the 29th time Council Directive 67/548/EEC.

**Symbol of danger** : Dangerous for the environment.

N

∇ **EC** : Zinc Phosphate storage is likely to be regulated by the SEVESO II directive ; it would be considered as a dangerous substance for the aquatic environment.

16. FURTHER INFORMATION

- **TOTAL LEAD** : < 0,1 %
- **SOLUBLE LEAD (HCI 0,07 N)** : < 0,1 %

EC :

Preparation labelling : (Directive 1999/45/EC)



Dangerous for the environment

N

EC Labelling (Directive 67/548 EEC and 2001/59/EC) : EINECS n°: 231-944-3

- R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S60 : This material and its containers must be disposed of as hazardous waste.
S61 : Avoid release to the environment. Refer to special instructions / safety data sheets.

The preparation is labelled :

- « N/Dangerous for the environment », R50/53 if the concentration of this substance exceeds 25% on a weight basis ;
- « N/Dangerous for the environment », R51/53 if the concentration of this substance is between 2.5 and 25% on a weight basis;
- R52/53 if the concentration of this substance is between 0.25 and 2.5% on a weight basis.

GERMANY :

- **Wassergefährdungsklasse WGK (VwVwS)** : WGK 2 – water pollutant – in accordance with annex 3, German VwVwS.

USA :

- **RTECS n°:** TD 0590000 (Register of Toxical Effects of Chemical Substances).
- Substance listed in the Toxic Substances Control Act Inventory (TSCA) (USA).
- **Cercla hazard rating (scale 0-3)** : Toxicity 2 - Flammability 0 -Reactivity 0 - Persistence 3

HMIS Rating : H = 0 - F = 0 - PH = 0.

HMIS III : The HMIS III ratings are from the HMIS Third Edition. There have been significant changes made to the system. "PH" stands for "Physical Hazard" as defined in the OSHA Haz Com Standard and replaces the former code "R" for "Reactivity". For a more detailed explanation of the system and the ratings, please contact our Offices at: INT = 33 1 30 40 57 57.

International status of the product :

- **Australia** : Listed in the AICS.
- **Canada** : Domestic Substance List (DSL).
- **Japan** : Listed in the MITI.

Modifications compare to the former version : ÿ : Addition ▽ : Text modification.

The information contained herein is based on the present state of our knowledge, but without liability.