RIGHT TO KNOW
HAZARDOUS SUBSTANCE FACT SHEET

Emergency Responders Quick Reference

Common Name: **ZINOPHOS**

Synonyms: Thionazin; Cynem; Nemafos
CAS Number: 297-97-2
Molecular Formula: $C_8H_{13}N_2O_3PS$
RTK Number: 2046
Description: Amber liquid, was also available in granular formulations.

HAZARD DATA

Hazard Rating		Firefighting	Reactivity
Health:	3	POISONOUS FUMES ARE PRODUCED IN FIRE, including *Sulfur Oxides, Nitrogen Oxides* and *Phosphorus Oxides*. CONTAINERS MAY EXPLODE IN FIRE. Use water spray to keep fire-exposed containers cool. Carrier solvents used in commercial formulations may change physical and toxicological properties.	**Zinophos** is susceptible to formation of *phosphine gas* in the presence of strong reducing agents such as *hydrides*. Partial oxidation by OXIDIZING AGENTS may result in the release of toxic *phosphorus oxides*.
Fire:	1		
Reactivity:	1		
DOT #:	UN 3018 UN 2783		
ERG #:	152		
DOT Hazard:	6.1 (poison)		

SPILLS/LEAKS

Isolation Distances:

Liquid Spill: 50 meters (150 feet)
Solid Spill: 25 meters (75 feet)
Fire: 800 meters (½ mile)

Evacuate personnel.
Secure and control entrance to the area.
If it is safe to do so, remove potential ignition sources.
Collect *powdered* material in the most convenient and safe manner and deposit in sealed containers.
Absorb *liquids* in vermiculite, dry sand, earth, or a similar material and deposit in sealed containers.
Do not allow this substance to enter waterways, including sewers, as it is very toxic to aquatic life with long-lasting effects.
Ventilate and wash area after clean-up is complete.

PHYSICAL PROPERTIES

Melting Point: -1.7 ˚C (29 ˚F)
Vapor Pressure: 0.003 mm Hg at 30 ˚C (86 ˚F)
Water Solubility: Slightly soluble
Molecular Weight: 248.2
Boiling Point: 80 °C (176 °F)

EXPOSURE LIMITS

There are no occupational exposure limits to **Zinophos**.

PAC: PAC-1 = 0.32 mg/m^3
PAC-2 = 3.5 mg/m^3
PAC-3 = 21 mg/m^3

PROTECTIVE EQUIPMENT

Gloves: Nitrile or Neoprene
Coverall: Tychem® BR, CSM and TK, or the equivalent
Respirator: Supplied-air, full facepiece, pressure-demand or another positive-pressure mode

ACUTE HEALTH EFFECTS

Eyes: Blurred vision
Skin: Skin irritation
Inhalation: Headache, dizziness, blurred vision, chest tightness, twitching, loss of coordination, convulsions, coma, death

FIRST AID AND DECONTAMINATION

Immediately flush with large amounts of water for at least 15 minutes.
Quickly remove contaminated clothing. Immediately wash area with large amounts of soap and water.
Shampoo hair promptly if contaminated.
Remove the person from exposure.
Begin rescue breathing (using universal precautions) if breathing has stopped and CPR if heart action has stopped.
Transfer promptly to a medical facility.
Medical observation is recommended for several days as symptoms may be delayed.