

Product Name: NONOX NH-500

Rev. No./Date: #0 / 2010. 4.08

### **SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT NAME	CHEMAX P-500L	PRODUCT NO.	MS-341
GENERAL FEATURE	Protection of corrosion & scaling Boiler of	carbon steel on boil	er drum, evaporator
USE	Boiler Chemical used for protection of corr	rosion & scaling for I	nigh pressure boiler
COMPANY NAME	PRIME TECH INTERNATIONAL CO., LTD	).	
ADDRESS	GYEONGGI TECHNOPARK, sa-1 DON korea	NG, Sangnok-gu, 🛦	Ansan-si, Gyeonggi-do,
TELEPHONE NO.	82-31-500-4560		
FAX. NO.	82-31-500-4562		
DEPARTMENT	Technical & Research H./Q		

#### **SECTION 2. HARZARD, DANGEROUSNESS**

OLOTION Z. HARLARD,						
HARZARDS CLASSIFICATION	Skin corrosivity material (Classification 1)					
WANNING SIGN		>				
CLASSIFICATION	SIGNAL	. WORD	HAZARD	HAZARD		
INCLUDING	HAZARD	LETTER	May cause severe skin burn & eye damage.			
PRECATION LETTER	PRECAUTION	PREVENTION	Wash your hands thoroughly after use.			
		RESPONSE	Wash immediately with plenty of water & soap once the chemical is on your skin.			
	LETTER	STORAGE	Keep it hermetion dampness and ware	cally in dry place water.	to avoid	
		DISPOSAL	Discard it according to the rule as specified.			
OTHER HAZARDS	NEFA PATING (SCALE :0~4 )		HEALTH	FIRE	REACTIVITY	
• HAZARDS	Photassium phosphate (Di-basic)		1	0	0	
CLASSIFICATION	Photassium phosphate (Tri-basic)		3	0	0	

# SECTION 3. COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENTS	OTHER NAME	CAS NUMBER	MOLECULAR FORMULA	PERCENTAGE(%)
Photassium phosphate (Di-basic)		7778-53-2	$K_3PO_4$	UNDER 20%
Photassium phosphate		7758-11-4	K₂HPO₄	Business secret





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(Tri-basic)			
Water	7732-18-5	H <sub>2</sub> O	

Details on the whole composition name and contents name are confidential business information in pursuance of Article 19 (maintain confidentiality classification) regarding making out and providing the material safety data sheet by ministry of Labor examination, 96-12.

Residual components do not contain carcinogenic substance and hazardous material by NTP, IARC & OSHA

#### **SECTION 4. EMERGENCY MEASURES**

EYE CONTACT	Irrigate the eye with water for 15minutes. If there is an inflammation, take a medical action immediately.
SKIN CONTACT	<ul> <li>Immediately take off contaminated clothing and shoes.</li> <li>Wash immediately with plenty of water &amp; soap until completely removed.</li> </ul>
INHALATION	There is small possibility of inhalation as it's a liquid product. If it is exposed to direct sunlight for a long time or boil-off gas that has possibility of volatilization is inhaled, patient should be moved to well-ventilated place.
INGESTION	<ul> <li>Wash out mouth with the running water immediately.</li> <li>Take a medical action immediately and give the advice about gastric lavage.</li> <li>It can be desirable for airway intubation by trained medical personnel.</li> <li>Bow the head down the bottom to prevent the nausea.</li> </ul>
MAIN SYMPTOMS OF ACUTE & DELAY	Not exhibited.
MEDICAL ADVICE	Not exhibited.

#### **SECTION 5. FIRE FIGHTING MEASURES**

RIGHT FIRE EXTINGUISHER	Liquied, Foam, Powder & CO2 fire extinguisher
SPECIAL HAZARD BY CHEMICAL	Pyrolysate : Phosphoric acid Fire and explosion hazard : Fire hazard is negligible.
PRECAUSION AND PROTECTIVE EQUIPMENT ON FIRE FIGHTING	<ul> <li>If there is no danger, container is moved from the fire area and avoid the inhalation of the material or products of combuetion.</li> </ul>

### **SECTION 6. LEAKAGE ACCIDENT MEASURES**

PERSONAL PRECAUTION	Use personal protective equipment to direct contact.
ENVIROMENTAL PRECAUSIONS	<ul> <li>Flush the contaminated area out with clean water and remove the residue by brushing.</li> <li>Water facility should be installed near the work place for the age thickening of leaked chemical.</li> </ul>
METHODS FOR CLEAN	Use the inactivity absorbent about effusion & throw away by pumping

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UP	•	Wash immediately with plenty of water or commit the process to company handling the disposal.
	•	If there remain the slippery things, more use of <b>dry sweeping material</b> should be needed.

#### **SECTION 7. HANDLING AND STORAGE**

HANDLING	<ul> <li>Protecting mask, safety goggles, protective clothing(long sleeve), rubber glove must be worn to avoid the direct contact.</li> <li>Avoid to mix strong acidulant with undiluted solution due to its alkali-ash.</li> <li>Handle the container carefully because it may become damaged.</li> </ul>
STORAGE	<ul> <li>Keep out of direct light except for time of use and store it in an airtight container at well-ventilation place.</li> </ul>

### **SECTION 8. EXPLOSURE CONTROLS, PERSONAL PROTECTION**

CHEMICAL,BIOLOGICAL EXPOSURE STANDARDS		Not known
ENGINEERING	CONTROLS	Not exhibited.
	RESPIRATORY PROTECTION	NOISH official respiratory organs.
PERSONAL	EYE & HAND	Goggles.
PROTECTION	PROTECTION	Not use contact lens
	BODY PROTECTION	Protective clothing, rubber apron

## SECTION 9. PHYSICOCHEMICAL CHARACTERISTIC

APPEARANCE	Colorless or light yellow liquid
ODOR	Odourless
рН	11.6 ±1.0 (1%, 25°C)
SPECIFIC GRAVITY	1.13 ±0.05 (20°C)
SOLUBILITY	Able to dilute with water
BOILING POINT	Not exhibited.
FREEZING POINT	Not exhibited.
EXPLOSIVENESS	n/a
OXIDATIVE	n/a
VAPOR RESSURE	Similar to water
VAPOR DENSITY	Not exhibited.
DISTRIBUTION	n/a
COEFFICIENT	iva
VISCOSITY	Not exhibited.
FLASH POINT(°C)	n/a
IGNITION POINT(°C)	Not measured



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FLAME ABILITY LIMIT	
(EXPOSURE LIMIT)	Not measured

#### **SECTION 10. STABLITY AND REACTIVITY**

CHEMICAL STABILITY	Stable at ambient temperature and normal pressure
CONDITIONS TO AVOID	Avoid to contact the heat, flame, spark
CONDITIONS TO AVOID	Keep out of direct light
HAZARDOUS DECOMPOSITION PRODUCTS	Pyrolysis or Combustion Product : CO2, CO, Phosphoric Acid
HAZARDOUS MATERIAL PRODUCTION POSSIBILITY ON REACTION	n/a

#### **SECTION 11. TOXICOLOGICAL INFORMATION**

ACUTE ORAL TOXICITY	Photassium phosphate (Di-basic) : LD <sub>50</sub> = 1700mg/kg (Oral, Mouse)
	Photassium phosphate (Tri-basic) : $LD_{50}$ = 2000mg/kg (Oral, rat)
ACUTE INHALATION TOXICITY	Not exhibited.
SUBACUTE TOXICITY	Not exhibited.
CHRONIC TOXICITY	Not exhibited.
MUTAGENICITY TOXICITY	Not exhibited.
GENETICAL EFFECTS	Not exhibited.
(REPRODUCTIVE TOXICITY)	
CARCINOGENICITY EFFECTS	Not exhibited.
OTHER INFORMATION ON	Not exhibited.
HEALTH EFFECTS	

## **SECTION 12. ENVIRONMENTAL CONSEQUENCE**

	Photassium phosphate (Di-basic) : Fish toxicity LC <sub>50</sub> =900mg/kg (48hr, Fish)
AQUATIC TOXICITY	Photassium phosphate (Tri-basic) : Fish toxicity $\mathbb{L}C_{50}$ =560mg/kg (96hr,
	Mosquitofish)
RESIDUE AND	Not exhibited.
RESOLVABILITY	Not exhibited.
BIOACCUMULATION	Not exhibited.
EARTH MOBILITY	Not exhibited.
OTHER INFORMATION ON HARZARD	Not exhibited.

## **SECTION 13. DISPOSAL CONSIDERATIONS**

DISPOSAL METHOD	Storing container has to be disposed by the waste disposal company recognized
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	by local government Head. The product is incinerated or can be used for soil stabilizer.
DISPOSAL DIRECTION	When incinerating, No residue have to be left in the container.

### **SECTION 14. TRANSPORT INFORMATION**

UN NO.	Not classified
UN SHIPMENT NAME	Not exhibited.
TRANSPORT HAZARD CLASS	Not exhibited.
CONTAINER CLASS	Not exhibited.
MARINE POLLUTANT	n/a
SPECIAL SAFETY MEASURE ABOUT TRANSPORT NEEDED FOR USER	Not exhibited.

## **SECTION 15. REGULATORY INFORMATION**

REGULATION BY OCCUPATION SAFETY AND HEALTH ACTS	None
REGULATION BY TOXIC CHEMICALS CONTROL ACTS	None
REGULATION BY SAFETY CONTROL OF DANGEROUS SUBSTANCES ACTS	Not exhibited.
REGULATION BY WASTES CONTROL ACTS	None
REGULATION BY OTHER DOMESTIC AND INTERNATIONAL LAW	Not exhibited.

## **SECTION 16. OTHER INFORMATION**

	The MERCK HANDBOOK, 12 <sup>th</sup> EDITION(1996)
SOURCE OF DATA	<ul> <li>Inventory of Existing Chemical Substances – Korea Toxic Management Association</li> </ul>
	Korea Occupational Safety and Health Agency - MSDS

