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

1.1 Product identifier

Product name: NO₃: PO4-X Product code: R22200, R22203, R22204, R22206

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

Aquarium water supplement.

1.3 Details of the supplier of the safety data sheet

Red Sea Fish Pharm Ltd Free Trade Industrial Zone Eilat 88000 Israel Tel: +972-9-9567107

E-mail address of person responsible for this SDS: sharonr@redseafish.co.il

<u>1.4 Emergency telephone number</u>

Emergency telephone number (with hours of operation): N/A

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to 29 CFR 1910.1200 (OSHA HCS): Flam. Liq. 3 H226

Classification in accordance to Regulation (EC) No. 1272/2008 (CLP): Flam. Liq. 3 H226

See section 16 for the full text of the H-statements declared above.

2.2 Label elements

Labelling according to 29 CFR 1910.1200 (OSHA HCS) Hazard pictogram(s):



Signal word: Warning

<u>Hazard statement(s):</u> H226: Flammable liquid and vapour.

Precautionary Statement(s): Not required P102: Keep out of reach of children. P210: Keep away from heat/sparks/open flames/hot surfaces. – No smoking. P233: Keep container tightly closed.



NO3: PO4-X

Page 2 of 9

Labelling in accordance with Regulation 1272/2008 (CLP) Hazard pictogram(s):



Signal word: Warning

<u>Hazard statement(s):</u> H226: Flammable liquid and vapour.

Precautionary Statement(s): Not required P102: Keep out of reach of children. P210: Keep away from heat/sparks/open flames/hot surfaces. – No smoking. P233: Keep container tightly closed.

2.3 Other hazard

Not available

SECTION 3: Composition/information on ingredients

3.2 Mixtures:

Substance name	Identifiers	%	CLP Classification	OSHA HCS Classification
Ethanol	CAS number: 64-17-5 EC number: 200-578-6	< 25	Flam. Liq. 2 H225	Flam. Liq. 2 H225
Acetic acid	CAS number: 64-19-7 EC number: 200-580-7	< 5	Flam. Liq. 3 H226 Skin Corr. 1A H314	Flam. Liq. 3 H226 Skin Corr. 1A H314
Methanol	CAS number: 67-56-1 EC number: 200-659-6	< 2.5	Flam. Liq. 2 H225 Acute Tox. 3 H301, H311, H331 STOT SE 1 H370	Flam. Liq. 2 H225 Acute Tox. 3 H301, H311, H331 STOT SE 1 H370

See section 16 for the full text of the H-statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- **Eyes contact:** In case of contact with eyes, rinse immediately with plenty of water for at least 15 minutes. Get medical attention.
- **Skin contact:** Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Get medical attention.



NO3: PO4-X Page 3 of 9 Inhalation: Remove the victim from site of exposure to fresh air. If breathing is difficult, give oxygen. If not breathing give artificial respiration. Get medical attention.

Ingestion: Do not induce vomiting. If victim is conscious, wash mouth thoroughly with plenty of water. Never give anything by mouth to an unconscious person. Get medical attention.

4.2 Most important symptoms and effects. both acute and delayed

See section 2.2 (Label elements) and/or section 11 (Toxicological information) for the most important known symptoms and effects.

<u>4.3 Indication of any immediate medical attention and special treatment needed</u> Not available

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

<u>Suitable</u>: Use extinguishing media suitable to the surroundings such as, dry chemical powder, chemical foam, water spray and carbon dioxide.

Not suitable: N/A

5.2 Special hazards arising from the substance or mixture

Flammable liquid and vapour. Flammable vapours may be produced if heated. When heated sufficiently, product may decompose to form smoke and toxic fumes, gases or vapours that may cause dizziness. Toxic fumes such as carbon oxides may be evolved on thermal decomposition.

5.3 Advice for firefighters

Special protective equipment for fire fighters: Fire fighters should wear full protective clothing and self-contained breathing apparatus in positive pressure mode.

SECTION 6: Accidental release measures

6.1 Personal precautions. protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Ventilate area of spill.

6.2 Environmental precautions

Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations.

6.4 Reference to other sections

See Section 1 for emergency contact information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapors, mist or gas. Wash thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice.



NO₃: PO4-X

Page 4 of 9

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also section 8 for additional information measures.

7.2 Conditions for safe storage. including any incompatibilities

Storage: Keep only in original container. Avoid large temperature changes and store in a cool, dry, well ventilated environment away from direct sunlight. Keep containers closed when not in use. Keep away from oxidising compounds, reducing agents, alkali metals, ammonia, peroxides, acid chlorides, acid anhydrides.

7.3 Specific end use(s): N/A

SECTION 8: Exposure control/personal protection

8.1 Control parameters

Substance name	Occupational exposure limits		
	ACGIH-TLV 1000 ppm (STEL)		
Ethanol	OSHA-PEL 1000 ppm (TWA)		
	NIOSH-REL 1000 ppm (TWA), 10H		
	ACGIH-TLV 10 ppm (TWA), 15 ppm (STEL)		
Acetic acid	OSHA-PEL 10 ppm (TWA)		
	NIOSH-REL 10 ppm (TWA), 15 ppm (STEL), 10H		
	ACGIH-TLV 200 ppm (TWA), 250 ppm (STEL), skin		
Methanol	OSHA-PEL 200 ppm (TWA)		
	NIOSH-REL 200 ppm (TWA), 250 ppm (STEL), skin, 10H		

8.2 Exposure controls

Engineering measures

Use process enclosures, local exhaust ventilation, or others engineering controls to keep airborne levels below recommend exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Person protective measures

<u>Respiratory protection</u>: Disposable particulate mask. Be sure to use an approved/certified equipment or equivalent equipment. Wear appropriate respirator when ventilation is inadequate.

Hand protection: Wear protective gloves to prevent skin exposure.

Eye protection: Wear protective safety glasses.

Skin protection: Wear appropriate long-sleeved clothing to minimize skin contact.

During normal non-professional use of the preparation no personal protective equipment is required. However, in case of manufacture or spillage, use as appropriate to the size of the spill.

Environmental exposure controls: Not available



NO3: PO4-X

Page 5 of 9

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: clear liquid Odour: alcoholic Odour threshold: N/A pH: N/A Melting point/Freezing point: N/A Initial boiling point/boiling range: N/A Flash point: 36°C-39°C (estimated) Evaporation rate: N/A Flammability: Vapour from liquid maybe combustible Upper/lower flammability or explosive limits: N/A Vapor pressure: N/A Vapor density: N/A Relative Density: N/A Solubility(ies): completely soluble in water Partition coefficient Octanol/Water: N/A Auto-ignition temperature: N/A Decomposition temperature: N/A Viscosity: N/A Explosive properties: N/A Oxidizing properties: N/A

9.2 Other information

Not available

SECTION 10: Stability and reactivity

10.1 Reactivity

Not available.

10.2 Chemical stability

The product is stable under normal handling and storage conditions described in Section 7.

10.3 Possibility of hazardous reactions

Hazardous reactions are not expected, under normal conditions of storage and use.

10.4 Conditions to avoid

Long term exposure to heat, direct sunlight and sources of ignition.

10.5 Incompatible materials

Oxidising compounds, reducing agents, alkali metals, ammonia, peroxides, acid chlorides, acid anhydrides.

10.6 Hazardous decomposition products

Other decomposition products: not available In the event of fire: see section 5



NO3: PO4-X

Page 6 of 9

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity:

Product/substance name	Test	Species	Dose
Ethanol	LD50, Oral	Rat	7060 mg/kg
Ethanor	LC50, Inhalation	Rat	20000 ppm/10H
	LD50, Oral	Rat	3310 mg/kg 11000 mg/m ³ /4H
Acetic acid	LC50, Inhalation	Rat	
	LD50, Administration onto the skin	Rabbit	1060 µL/kg
	LD50, Oral	Rat	5600 mg/kg
Methanol	LC50, Inhalation	Rat	64000 ppm/4H
	LD50, Administration onto the skin	Rabbit	15800 mg/kg

Skin corrosion/irritation: Not available

Serious eye damage/irritation: Not available

<u>Respiratory or skin sensitization</u>: No compounds present in the preparation have been identified as having sensitizing properties.

<u>Germ cell mutagenicity</u>: No compounds present in the preparation have been identified as having mutagenic properties.

<u>Carcinogenicity</u>: No compounds present in the preparation have been identified as having carcinogenic properties.

<u>Reproductive toxicity</u>: No compounds present in the preparation have been identified as having reproductive toxicity properties.

Specific target organ toxicity (single exposure): Not available

Specific target organ toxicity (repeated exposure): Not available

Aspiration hazard: Not available

Other effect:

The preparation contains acetic acid and may cause local damage in contact with tissue of the eyes and skin. Inhalation of spray or mist may irritate the respiratory system and ingestion may damage the linings of the mouth, throat and gastro-intestinal tract.

The preparation contains methanol which may be fatal or cause blindness if swallowed and cannot be made non-poisonous. Effects due to ingestion may include; nausea, dizziness, gastrointestinal disturbance, weakness, confusion. Drowsiness or unconsciousness. Another volatile compound is present and could cause central nervous system depression, nausea, dizziness, narcosis and damage to the heart.

SECTION 12: Ecological information

12.1 Toxicity

Not available

12.2 Persistence and Degradability

Compounds present in the preparation would be readily bio-degradable in the environment.

12.3 Bioaccumulative potential

Not available



NO3: PO4-X

Page 7 of 9

12.4 Mobility in soil

Though there is no specific information on the mobility of compounds in the preparation, they are soluble under normal environmental conditions in water so would also be expected to be highly mobile in soil.

12.5 Results of PBT and vPvB assessment

Not available

12.6 Other adverse effects

No components in NO₃:PO4-X have been shown to be hazardous to aquatic organisms.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Packing

Empty containers should be taken for local recycling, recovery or waste disposal.

SECTION 14: Transport information					
<u>14.1 Un number</u> <u>ADR/RID:</u> 1993	<u>IMDG:</u> 1993	<u>IATA:</u> 1993	<u>DOT (US):</u> 1993		
<u>14.2 UN proper shipping name</u> <u>ADR/RID:</u> FLAMMABLE LIQUIDS, N.O.S. (Ethanol)					
IMDG: FLAMMABLE LIQUIDS, N.O.S. (Ethanol)					
IATA: Flammable liquids, n.o.s. (Ethanol)					
DOT (US): Flammable liquids, n.o.s. (Ethanol)					
14.3 Transport hazard c ADR/RID: 3	l ass(es) IMDG: 3	<u>IATA</u> : 3	<u>DOT (US)</u> : 3		
14.4 Packing group ADR/RID: III	<u>IMDG</u> : III	<u>IATA</u> : III	<u>DOT (US)</u> : III		
14.5 Environmental haz ADR/RID: -	ard IMDG: -	<u>IATA</u> : -	<u>DOT (US)</u> : -		
<u>14.6 Special precautions for user</u> Not available					
14.7 Transport to bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available					

SECTION 15: Regulatory information

This SDS complies with the following requirements of: EU Directives 67/548/EEC (DSD) and 1999/45/EC (DPD), including amendments EU Regulation (EC) No.1907/2006 (REACH) including amendments Regulation (EC) No.1272/2008 (CLP) 29 CFR 1910.1200 (OSHA HCS)



NO3: PO4-X

Page 8 of 9

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

California Prop. 65 Components

This product contains a chemical known to State of California to cause birth defects, or other reproductive harm: Methanol Cas 67-56-1.

TSCA inventory

The components of the product are included or exempted from the TSCA inventory.

15.2 Chemical safety assessment

Not available

SECTION 16: Other information

NFPA Rating

Health hazard: 1

Fire Hazard: 2

Reactivity Hazard: 0

Full text of Hazards Statements referred to in sections 2 and 3:

Flam. Liq. - Flammable liquid Acute Tox. - Acute toxicity Skin Corr. - Skin corrosion STOT SE - Specific target organ toxicity — single exposure H225: Highly flammable liquid and vapour. H226: Flammable liquid and vapour. H301: Toxic if swallowed. H311: Toxic in contact with skin. H314: Causes severe skin burns and eye damage. H331: Toxic if inhaled. H370: Causes damage to organs.

Training advice: Before using/handling the product one must read carefully present SDS.

Key Legend Information: CAS - Chemical Abstract Service ACGIH - American Conference of Governmental Industrial Hygienists OSHA - Occupational Safety and Health Administration NTP - National Toxicology program IARC - International Agency for Research on Cancer N/A - Not available R-phrases- Risk phrases H-statements- Hazard statements TLV - Threshold Limit Value



NO3: PO4-X

Page 9 of 9

TWA - Time-weighted average STEL - Short-Term Exposure Limit CSA - Chemical safety assessment

Date of issue: 20/08/2015 Version no.: 1

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