MATERIAL SAFETY DATA SHEET

In compliance with EC Directive 2001/58/EC

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

Product Name: BAUXITE REMOVER

Product Uses: Industrial applications. Tank cleaning agent.

Details of the supplier of the safety data sheet Company:
Unimarine Services Inc.
60 Market Square,
PO Box 364, Belize City

Representative office in Cyprus:
Email: info@unimarine-services.com
Tel: +357 25331054

Emergency Telephone Number

Emergency Telephone: Only to be used in case of incident
Tel: +357 25 331054

2. HAZARDS IDENTIFICATION

The preparation is classified as dangerous according to Directive 1999/45/EC and its amendments.

Causes burns.

Odorless and colorless liquid.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Composition:

Ingredients	CAS Number	Proportion	Classification*
Phosphoric Acid (Solution 85%)	7664-38-2	20% - 60%	C; R34
Components which do not contribute to the classification of the product	-	40% - 80%	-

*See section 16 for the full text of the classifications and the R-phrases declared above.

Occupational Exposure Limits, if available, are listed in section 8.

4. FIRST AID MEASURES

INHALATION
Remove victim from immediate source of exposure and assure that the victim is breathing. Administer oxygen if available. Seek immediate medical attention.

SKIN
Wash skin with plenty of soap and water for at least 15 minutes. Seek medical attention. Remove contaminated clothing and shoes and clean before reuse or discard if they cannot be thoroughly cleaned.

EYES
Hold eyelids open and flush with a steady, gentle stream of water for at least 15minutes. Seek immediate medical attention preferably with an ophthalmologist.

5. FIRE-FIGHTING MEASURES

EXTINGUISH MEDIA
Not combustible. Use extinguish method suitable for surrounding fire.

FIRE-FIGHTING PROCEDURES
Fire fighters should wear self contained breathing apparatus and full protective clothing. Keep unnecessary people away, isolate hazard area and deny entry. Dike area to prevent run off and contamination of water sources. Persons who have been exposed to contaminated smoke should be immediately examine by a physician and checked for symptoms of poisoning.

HAZARDOUS COMBUSTION PRODUCTS
Oxides of Phosphorous.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS
Wear appropriate protective gear for the situation. See personal protection information in section 8.

ENVIRONMENTAL PRECAUTIONS
Run off from fire control or dilution water may cause pollution. Large spills should be handled according to a predetermined plan.

METHODS FOR CLEANING UP
Carefully neutralize spill with soda ash. Clean up residual material by washing up area with water.

7. HANDLING AND STORAGE

HANDLING
Do not get on skin or in eyes. Avoid breathing vapors and mists. Do not ingest. This product reacts violently wit bases liberating heat and causing spattering.

STORAGE
Store in an area that is cool, dry, well ventilated.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS

Name of Substance: Phosphoric Acid

OSHA Permissible Exposure Level (PEL): 8 hour time-weighted average 1mg/m

ACGIH Threshold Limit Value (TLV): 5mg/m (ACGIH 1993-1994)

ACGIH Threshold Limit Value (TLV): time-weighted average 1mg/m^3

PERSONAL PROTECTION

Eye and face protection: Eye contact should be prevented through use of chemical safety glasses with side shields or splash proof goggles. An emergency eye wash must be readily accessible to the work area. Face contact should be prevented through use of a face shield.

Skin protection: Skin contact should be prevented through use of suitable protective clothing gloves and footwear, selected with regard for use conditions and exposures potential. Consideration must be given both to durability as well as permeation resistance.

Respiratory protection: When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and industrial recommendations.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear liquid
Color:	Colorless
Odor:	Odorless
Freezing Point Range:	$-17^{o}C - 21^{o}C$
Boiling Point Range:	$135^{o}C - 158^{o}C$ at 760mmHg
Solubility:	Adequate
Flash Point:	Not Applicable
Autoignition Temperature:	Not Available
Lower Explosion Limit (vol %):	Not Available
Upper Explosion Limit (vol %):	Not Available
Vapour Pressure:	2.16-5.65 mmHg at $760^{o}C$
Vapour Density	Not Available
Relative vapor density (air=1):	Not Available
Specific Gravity:	1.27 gr/cm^3 at $15^{o}C$
pH Value:	1 at $20^{o}C$

10. STABILITY AND REACTIVITY

STABILITY
This material is stable under normal handling and storage conditions described in Section 7.

CONDITIONS TO BE AVOIDED
None known.

MATERIALS TO BE AVOIDED
Fluorine, Strong Oxidizing Agents, Strong Reducing Agents, Bases, Metals, Sulfur Trioxide, Phosphorus Pentoxide.

HAZARDOUS DECOMPOSITION PRODUCTS
Oxide of phosphorous.

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL DATA

LD50 (oral, rat): 1530 mg/kg (anhydrous substance)

LC50 (inhalation, rat) : >0.85 mg/l /1 h (anhydrous substance)
LD50 (dermal, rabbit): 2740 mg/kg (anhydrous substance)

Eye irritation test (rabbit): strong irritant effect.
Skin irritation test (rabbit): strong irritant effect.

HEALTH EFFECTS

Inhalation: Mists can cause lung irritation, shortness of breath, fluid in lungs

Skin contact: Causes irritation and skin burns.

Eye contact: Corrosive, causes tissue destruction, permanent damage to the cornea, blindness

Ingestion: Can cause nausea, vomiting, diarrhoea, corrosion, burns to mouth and oesophagus, abdominal pain, chest pain, shortness of breath, seizures, death.

CHRONIC TOXICITY

This product does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogens.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL DATA
Fish toxicity: fish LC50: <138 mg/l
Aquatic organisms LC50: 100-1000 mg/l 96 h

DEGRADATION
No specific biodegradation test data locate. While acidity of this material readily reduced in natural waters, the resulting phosphate may persist indefinitely or incorporate into biological systems.

FURTHER ECOLOGICAL DATA:
Depending on the concentration, phosphorus compounds may contribute to the eutrophication of water supplies.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS
There are no uniform EC Regulations for the disposal of chemicals or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated in the EC member countries through corresponding laws and regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste.

14. TRANSPORT INFORMATION

Proper shipping name: **PHOSPHORIC ACID, LIQUID**

LAND TRANSPORT

UN number:	1805	RID-class:	8/17c
ADR class:	8		
ADR:	8		

SEA TRANSPORT

UN number:	1805	EmS:	F-A, S-B
IMDG class:	8		
IMDG packing group:	III		

AIR TRANSPORT

UN number:	1805	IATA/ICAO class:	8
Packing group:	III		

15. REGULATORY INFORMATION

LABELING ACCORDING TO EC DIRECTIVES

Symbol: C, Corrosive

C, Corrosive

Risk (R)-phrases:

R34: Causes burns.

Safety (S)-phrases:

S2 Keep out of the reach of children.
S26 In case of contact with eyes rinse immediately with plenty of water and seek medical advice.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S23 Do not breathe gas/vapour.
S38 In case of insufficient ventilation, wear suitable respiratory equipment.

16. OTHER INFORMATION

Full text of R-phrases referred in Section 3

R34: Causes burns.

Full text of classifications referred in Section 3

C – Corrosive.

Notice to reader

All information, instructions and statements contained in this Material Safety Data Sheet are compiled in accordance with European Directives, corresponding national legislation and on the basis of information given by our suppliers.
The information disclosed in this Material Safety Data Sheet (which supersedes all previous versions) is believed to be correct, at the date of issue, to the best of our current knowledge and experience. It only relates to the specific product designated herein and it may not be valid when said product is used in combination with any other products or in any processed form, unless specified in the text. This document aims to provide the necessary health and safety information of the product and is not to be considered a warranty or quality specification. It is the responsibility of the recipient of this Material Safety Data Sheet to ensure that information given here is read and understood by all who use, handle, dispose of or in any way come in contact with the product.
Also, it is the responsibility of the user to comply with local legislation relating to safety, health, environment and waste management. Data and information provided concerning the product are informative, exclusively presented to the customer.