MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

PRODUCT NAME: **PHOSPHORIC ACID 85%**

OTHER NAMES: **ORTHO PHOSPHORIC ACID 85%**

RECOMMENDED USE: **FERTILISERS; SOAPS & DETERGENTS; INORGANIC PHOSPHATES; PICKLING & RUST PROOFING METALS; PHARMACEUTICALS; SUGAR REFINING; GELATIN MANUFACTURE; WATER TREATMENT; ANIMAL FEEDS; ELECTRO POLISHING; GASOLINE ADDITIVE; CONVERSION COATING FOR METALS; CATALYST FOR ETHANOL MANUFACTURE; YEASTS; WAXES & POLISHES; BINDER FOR CERAMICS; LABORATORY REAGENT.**

SUPPLIER

NAME: **Con-Treat Pty Ltd**

ADDRESS: **Unit 11, 80-82 Township Drive, Burleigh Heads, QLD 4220**

TELEPHONE: **GENERAL ENQUIRIES: 1300 044 625**

FAX: **GENERAL ENQUIRIES: 0755 76 5148**

2. HAZARDS IDENTIFICATION

HAZARD CLASSIFICATION: Classified as **hazardous** according to the criteria of NOHSC.

Classified as a **dangerous good UN 1805** according to the criteria of ADG Code (see section 14).

Classified as **schedule 6** according to the criteria of SUSDP (see section 15).

HAZARD CATEGORY: C – Corrosive

RISK PHRASES: R34 - Causes burns.

R41 - Risk of serious damage to eyes.

SAFETY PHRASES: S1/2 – Keep locked up and out of reach of children.

S24/25 – Avoid contact with eyes and skin.

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 whenever possible).

The information contained in this MSDS is specific to the product when handled and used neat. This product when diluted may not require the same control measures as the neat product. Check with your technical representative if in doubt.

3. COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT	CAS No.	PROPORTION (% w/w)
*The ingredients below are considered either **hazardous, dangerous goods or poison scheduled** according to the criteria of NOHSC, ADG Code and SUSDP (respectively) at the levels used in the product.*		
Phosphoric Acid	7664-38-2	85%
*The ingredients below are **not** considered either **hazardous, dangerous goods or poison scheduled** according to the criteria of NOHSC, ADG Code and SUSDP (respectively) at the levels used in the product.*		
water	TO	100%

4. FIRST AID MEASURES

INGESTION: For advice, contact a Poisons Information Centre (Phone Australia 131126, New Zealand 0800 764 766) or a doctor. If swallowed, do NOT induce vomiting.

EYE CONTACT: If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.

SKIN CONTACT: If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor.

INHALATION: Remove from source of exposure to fresh air. Seek medical assistance if the effects persist.

***** SHOW THIS SAFETY DATA SHEET TO A DOCTOR *****

FIRST AID FACILITIES: Potable water should be available to rinse eyes or skin. Provide eye baths and safety showers.

NOTES TO PHYSICIAN: Treat symptomatically, may aggravate skin and lung disorders (for example, asthma-like conditions)

5. FIRE FIGHTING METHODS

SUITABLE EXTINGUISHING MEDIA: Water spray, foam, carbon dioxide or dry chemical powder.

HAZARDS FROM COMBUSTION: The product is non-combustible but will decompose under fire conditions releasing toxic and/or irritating smoke, phosphoric acid fumes and oxides of phosphorus. The packaging material may burn to emit noxious fumes. Contact with metals may liberate hydrogen gas which is extremely flammable.

PRECAUTIONS FOR FIRE FIGHTERS AND SPECIAL PROTECTIVE EQUIPMENT: Fire fighters should wear self-contained breathing apparatus and acid-resistant chemical splash unit to minimise risk of exposure.

HAZCHEM CODE: 2R

6. ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES: Spillages are slippery. Ensure adequate ventilation, work up wind or increase ventilation. Keep spectators away – rope off the area. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and inhalation of mists.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN UP: Contain the spill and prevent run off into confined areas, drains and waterways.

Absorb with dry earth, sand or other non-combustible material. Neutralise with lime or soda ash. Use clean non-sparking tools to collect and seal in properly labelled drums for disposal in an area approved by local authority by-laws. Wash area down with excess water to remove residual material.

Incineration of disposed material is not recommended, as it is unlikely to adequately burn.

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Keep containers closed at all times - check regularly for leaks or spills. Transport and store upright.

Addition to water releases heat which can result in violent boiling and splattering. Always add slowly and in small amounts. Never add water to acids always add acids to water.

Avoid eye contact and repeated or prolonged skin contact and breathing in mists. Do not eat, drink or smoke in contaminated areas. Always remove contaminated clothing and wash hands before eating, drinking, smoking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

CONDITIONS FOR SAFE STORAGE: Store in the original container, in a cool dry well-ventilated area out of sunlight and away from heat, incompatible materials and foodstuffs.

Keep containers closed when not in use to ensure contamination does not occur-check regularly for leaks. Do not combine part drums of the same product, as this may be a source of contamination. Do not mix with other chemicals.

This material is a Scheduled Poison S6 and must be stored, maintained and used in accordance with the relevant regulations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

NATIONAL EXPOSURE STANDARDS: No value assigned for this specific material by NOHSC, however as published by NOHSC:

T.W.A. for Phosphoric Acid = 1 mg/m^3

S.T.E.L. for Phosphoric Acid = 3 mg/m^3

BIOLOGICAL LIMIT VALUES: No biological limit allocated.

ENGINEERING CONTROLS: Ensure ventilation is adequate to maintain air concentrations below Exposure Standards.
If inhalation risk exists then use with local exhaust ventilation or while wearing air supplied respirator. Keep containers closed when not in use.

PERSONAL PROTECTIVE EQUIPMENT:

Protective equipment must be worn at all times. Risk assessments should always be conducted to identify the hazards and in turn determine the appropriate personal protective equipment for the hazard.

Protective gloves: elbow-length laminate film, unsupported nitrile, neoprene, neoprene/natural rubber blend or PVC impervious gloves. Always check with the glove manufacturer or your personal protective equipment supplier regarding the correct type of glove to use. Consult AS/NZS 2161 for further information.

Eye protection: safety glasses/goggles with side shield protection and/or full-face shield. Consult AS/NZS 1336 and AS/NZS 1337 for further information.

Clothing and footwear: waterproof apron, coveralls, trousers, long sleeved shirt, closed in shoes and/or safety footwear. Consult AS/NZS 2210 and AS/NZS 2919 for further information.

Respiratory Protection: Avoid breathing mist, sprays or vapours. Where ventilation is not adequate, respiratory protection may be required. Any air-purifying respirator with an acid gas filters or any chemical cartridge respirator with an acid gas cartridge(s) providing protection against the compound of concerns meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

9. PHYSICAL AND CHEMICAL PROPERTIES:

APPEARANCE:	Colourless, syrupy liquid.
ODOUR:	Odourless.
pH (NEAT):	< 2
SPECIFIC GRAVITY OR DENSITY:	1.68 - 1.70
VAPOUR PRESSURE:	No information available.
PERCENT VOLATILES:	Approx. 15% w/w
BOILING POINT / RANGE:	BP 157-158°C
FREEZING / MELTING POINT:	FP 21°C
SOLUBILITY:	Soluble in water & alcohol.
FLASH POINT:	No known fire hazard.
FLAMMABILITY LIMITS:	No information available.
IGNITION TEMPERATURE:	No information available.
SHELF LIFE:	2 years from manufacturing date (when stored as directed).
OTHER – MOLECULAR FORMULA:	H3PO4

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY:	Stable under normal conditions of use, however in cold weather it may crystallise. The shelf life is 2 years.
CONDITIONS TO AVOID:	Do not combine part drums of the same product, as this may be a source of contamination.
INCOMPATIBLE MATERIALS:	Alkalis, organic materials, aluminium and alloys, cast iron, brasses tin or zinc coated metals, strong oxidising and reducing agents, sulphides, phosphides, cyanides, acetylides, fluorides and carbides.
HAZARDOUS DECOMPOSITION PRODUCTS:	Oxides of phosphorus. The packaging material may burn to emit noxious fumes.
HAZARDOUS REACTIONS:	Reacts violently with alkalis with evolution of heat. Reacts exothermically on dilution with water. Reacts with strong oxidising and reducing agents, most metals, sulphides, phosphides, cyanides, acetylides, fluorides and carbides, releasing flammable or toxic gases. On heating may produce phosphorus oxides (POx). Corrosive to many metals with the liberation of extremely flammable hydrogen gas.

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

ACUTE EFFECTS

INGESTION:	Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the mouths, lips and gastrointestinal tract.
EYE CONTACT:	Corrosive to eyes and may injure the cornea. Contamination of eyes can result in permanent injury. Symptoms include stinging, tearing, redness and swelling of eyes.
SKIN CONTACT:	Corrosive to skin - may cause skin burns. May not produce an immediate burning sensation upon contact, delaying the awareness that contact has occurred. Symptoms may include redness, burning, and swelling of skin, burns, and other skin damage.

INHALATION: Breathing in mists or aerosols may produce severe respiratory irritation and burns to the nose, throat, and respiratory tract.

LONG TERM EFFECTS: No information available.

ACUTE TOXICITY / CHRONIC TOXICITY: No toxicity data for this specific product, however toxicity data for the hazardous ingredient is listed below.

TOXICITY DATA FOR PHOSPHORIC ACID: Oral LD50 (rat) 1530 mg/kg
Dermal LD50 (rabbit) 2740 mg/kg Inhalation LC50 (rat) > 850 mg/m^3/1h
Skin Irritation - Standard Draize Test (Rabbit) 595 mg/24H (Severe)
Eye Irritation - Standard Draize Test (Rabbit) 119 mg (Severe)

12. ECOLOGICAL INFORMATION

ECOTOXICITY: Avoid contaminating waterways. The product is highly acidic. If large spills occurred a water pH drop could be responsible for an environmental effect on aquatic organisms. Low concentrations of phosphate may act as a plant nutrient or precipitate heavy metals.

PERSISTENCE AND DEGRADABILITY: This product has no organic components thus AS4351 is not applicable.

MOBILITY: No information available.

OTHER: None.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS: Empty containers should be forwarded to an approved agent for recycling. Avoid unauthorised discharge to sewer.

SPECIAL PRECAUTIONS FOR LANDFILL OR INCINERATION: The product is suitable for disposal by landfill through an approved agent. Incineration of the product is not recommended, as it is unlikely to adequately burn.

14. TRANSPORT INFORMATION

ROAD AND RAIL TRANSPORT: Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail.

UN NUMBER: 1805

UN PROPER SHIPPING NAME: PHOSPHORIC ACID

CLASS AND SUBSIDIARY RISK(S): 8

PACKAGING GROUP: III

HAZCHEM CODE: 2R

INITIAL EMERGENCY RESPONSE GUIDE: Guide 37

SEGREGATION DANGEROUS GOODS: Not to be loaded with explosives (class 1), dangerous when wet substances (class 4.3), oxidising agents (class 5.1), organic peroxides (class 5.2), radioactive substances (class 7), corrosives (strong alkalis of class 8), foodstuffs and foodstuff empties, however exemptions may apply.

MARINE TRANSPORT: Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

UN NUMBER: 1805

UN PROPER SHIPPING NAME: PHOSPHORIC ACID

CLASS AND SUBSIDIARY RISK(S): 8

PACKAGING GROUP: III

STOWAGE AND SEGREGATION: Category A

AIR TRANSPORT: Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) for transport by air.

UN NUMBER: 1805

UN PROPER SHIPPING NAME: PHOSPHORIC ACID

CLASS AND SUBSIDIARY RISK(S): 8

PACKAGING GROUP: III

ERG CODE: 8L

15. REGULATORY INFORMATION

POISONS SCHEDULE (AUST.): 6

APVMA STATUS: Not relevant.

TGA STATUS: Not relevant.

AICS STATUS: All the constituents of this product are listed.

AQIS STATUS: Not relevant.

OTHER: None.

16. OTHER INFORMATION

GENERAL INFORMATION: This product is a medium to strong acid. Use good industrial hygiene.

MSDS ISSUE NUMBER: 002

MSDS ISSUE DATE: 31 JANUARY 2012

In any event, the review and, if necessary, the re-issue of a MSDS shall be no longer than 5 years after the last date of issue.

Electronic versions of the MSDS's in a PDF format are also available

REASON(S) FOR ISSUE: Update to conform to requirements of NOHSC:2011(2003); 16-header format.

THIS ISSUE NUMBER REPLACES ALL PREVIOUS ISSUES.

LITERARY REFERENCE:

SOURCES FOR DATA:

LEGEND:	
AICS	Australian Inventory of Chemical Substances
APVMA	Australian Pesticides and Veterinary Medicines Authority
AQIS	Australian Quarantine and Inspection Service
AS	Australian Standard (as issued by Standards Australia)
ERP Code	Emergency Response Drill Code as found in the ICAO (International Civil Aviation Organisation) Doc 9481
MSDS	Material Safety Data Sheet
NOHSC	National Occupational Health and Safety Commission
STEL	Short Term Exposure Limit - A 15 minute TWA exposure which should not be exceeded at any time during a working day even if the eight-hour TWA average is within the TWA exposure standard. Exposures at the STEL should not be longer than 15 minutes and should not be repeated more than four times per day. There should be at least 60 minutes between successive exposures at the STEL.
TGA	Therapeutic Goods Administration
TLV	Threshold Limit Value - TLV is a proprietary name registered by the American Conference of Governmental Industrial Hygienists (ACGIH) and refers to airborne concentrations of substances or levels of physical agents to which it is believed that nearly all workers may be repeatedly exposed day after day without adverse effect.
TWA	Time Weighted Average - The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week.

End of MSDS