Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
CLEAN N EASY RUST OFF

SYNONYMS
"Product code: RUO"

PROPER SHIPPING NAME
PHOSPHORIC ACID, SOLUTION

PRODUCT USE
Acid cleaner for the removal of rust and scale. Acidic dairy cleaner for the removal of proteinaceous scale.

SUPPLIER
Company: ITW AAMTech
Address: 100 Hassall Street
Wetherill Park
NSW, 2164
Australia
Telephone: +61 2 9828 0900
Emergency Tel: 1800 039 008 (24 hours)
Fax: +61 2 9725 4698

Company: Wynns New Zealand
Address: Unit 2, 38 Trugood Drive
East Tamaki
Auckland, 2013
New Zealand
Telephone: +64 9272 1940
Emergency Tel: +800 2436 2255 (24 hours)
Fax: +64 9272 1949

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE
HAZARDOUS SUBSTANCE. DANGEROUS GOODS. According to NOHSC Criteria, and ADG Code.

RISK
Risk Codes Risk Phrases
R22 • Harmful if swallowed.
R34 • Causes burns.
R41 • Risk of serious damage to eyes.
R53 • May cause long-term adverse effects in the aquatic environment.
R58 • May cause long-term adverse effects in the environment.

SAFETY
Safety Codes Safety Phrases
S01 • Keep locked up.
S23 • Do not breathe gas/fumes/vapour/spray.
S25 • Avoid contact with eyes.
S36 • Wear suitable protective clothing.
S40 • To clean the floor and all objects contaminated by this material, use water.
S27 • Take off immediately all contaminated clothing.
S45 • In case of accident or if you feel unwell IMMEDIATELY contact Doctor or Poisons Information Centre (show label if possible).
S60 • This material and its container must be disposed of as hazardous waste.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>NAME</th>
<th>CAS RN</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>phosphoric acid</td>
<td>7664-38-2</td>
<td>30-60</td>
</tr>
<tr>
<td>C.I. Acid Yellow 23</td>
<td>1934-21-0</td>
<td>&lt;10</td>
</tr>
<tr>
<td>polyethylene glycol monooleate</td>
<td>9004-96-0</td>
<td>&lt;10</td>
</tr>
</tbody>
</table>
Section 4 - FIRST AID MEASURES

SWALLOWED
• For advice, contact a Poisons Information Centre or a doctor at once.
• Urgent hospital treatment is likely to be needed.
• If swallowed do NOT induce vomiting.
• If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.

EYE
□ If this product comes in contact with the eyes:
• Immediately hold eyelids apart and flush the eye continuously with running water.
• Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
• Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
• Transport to hospital or doctor without delay.

SKIN
□ If skin contact occurs:
• Immediately remove all contaminated clothing, including footwear.
• Flush skin and hair with running water (and soap if available).
• Seek medical attention in event of irritation.

INHALED
□ If fumes or combustion products are inhaled remove from contaminated area.
• Lay patient down. Keep warm and rested.
• Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
• Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.

NOTES TO PHYSICIAN
□ Treat symptomatically.
For acute or short term repeated exposures to strong acids:
• Airway problems may arise from laryngeal edema and inhalation exposure. Treat with 100% oxygen initially.
• Respiratory distress may require cricothyroidotomy if endotracheal intubation is contraindicated by excessive swelling
• Intravenous lines should be established immediately in all cases where there is evidence of circulatory compromise.
• Strong acids produce a coagulation necrosis characterised by formation of a coagulum (eschar) as a result of the dessicating action of the acid on proteins in specific tissues.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA
• Water spray or fog.
• Foam.
• Dry chemical powder.
• BCF (where regulations permit).

FIRE FIGHTING
□ Alert Fire Brigade and tell them location and nature of hazard.
□ Wear full body protective clothing with breathing apparatus.
□ Prevent, by any means available, spillage from entering drains or water course.
□ Use fire fighting procedures suitable for surrounding area.

When any large container (including road and rail tankers) is involved in a fire, consider evacuation by 800 metres in all directions.

FIRE/EXPLOSION HAZARD
□ Non combustible.
□ Not considered to be a significant fire risk.
□ Acids may react with metals to produce hydrogen, a highly flammable and explosive gas.
□ Heating may cause expansion or decomposition leading to violent rupture of containers.
Decomposition may produce toxic fumes of: carbon monoxide (CO), carbon dioxide (CO2), phosphorus oxides (POx).
FIRE INCOMPATIBILITY
■ None known.

HAZCHEM
2R

Personal Protective Equipment
Breathing apparatus.
Chemical splash suit.

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS
■ Slippery when spilt.
• Clean up all spills immediately.
• Avoid breathing vapours and contact with skin and eyes.
• Control personal contact by using protective equipment.
• Contain and absorb spill with sand, earth, inert material or vermiculite.

MAJOR SPILLS
■ Slippery when spilt.
• Clear area of personnel and move upwind.
• Alert Fire Brigade and tell them location and nature of hazard.
• Wear full body protective clothing with breathing apparatus.
• Prevent, by any means available, spillage from entering drains or water course.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING
• Avoid all personal contact, including inhalation.
• Wear protective clothing when risk of exposure occurs.
• Use in a well-ventilated area.
• WARNING: To avoid violent reaction, ALWAYS add material to water and NEVER water to material.
• DO NOT allow clothing wet with material to stay in contact with skin.

SUITABLE CONTAINER
• DO NOT use aluminium or galvanised containers.
• Check regularly for spills and leaks.
• Lined metal can, lined metal pail/ can.
• Plastic pail.
• Polyliner drum.
• Packing as recommended by manufacturer.

STORAGE INCOMPATIBILITY
• Reacts with mild steel, galvanised steel / zinc producing hydrogen gas which may form an explosive mixture with air.
• Segregate from alkalies, oxidising agents and chemicals readily decomposed by acids, i.e. cyanides, sulfides, carbonates.

STORAGE REQUIREMENTS
• Store in original containers.
• Keep containers securely sealed.
• Store in a cool, dry, well-ventilated area.
• Store away from incompatible materials and foodstuff containers.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS
Source Material TWA mg/m³ STEL mg/m³
Australia Exposure Standards phosphoric acid (Phosphoric acid) 1 3

The following materials had no OELs on our records

continued...
PERSONAL PROTECTION

RESPIRATOR
Type B-P Filter of sufficient capacity

EYE
• Chemical goggles.
• Full face shield may be required for supplementary but never for primary protection of eyes
• Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

HANDS/FEET
• Wear chemical protective gloves, eg. PVC.
• Wear safety footwear or safety gumboots, eg. Rubber.
• When handling corrosive liquids, wear trousers or overalls outside of boots, to avoid spills entering boots.

OTHER
• Overalls.
• PVC Apron.
• PVC protective suit may be required if exposure severe.
• Eyewash unit.

ENGINEERING CONTROLS
■ General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE
Clear, bright green, mobile, acidic liquid with foaming characteristics; mixes with water.

PHYSICAL PROPERTIES
Liquid.
Mixes with water.
Corrosive.
Acid.
Toxic or noxious vapours/gas.

State | Liquid | Molecular Weight | Not Applicable
Melting Range (°C) | <- 10 | Viscosity | Not Available
Boiling Range (°C) | 100 approx. | Solubility in water (g/L) | Miscible
Flash Point (°C) | Not Applicable | pH (1% solution) | 1.6-2.6
Decomposition Temp (°C) | Not Applicable | pH (as supplied) | <1
Autoignition Temp (°C) | Not Applicable | Vapour Pressure (kPa) | 2.40 @ 20C
Upper Explosive Limit (%) | Not Applicable | Specific Gravity (water=1) | 1.34 +/- 0.01 @ 20C
Lower Explosive Limit (%) | Not Applicable | Relative Vapour Density (air=1) | Not Available
Volatile Component (%vol) | Not Available | Evaporation Rate | Not Available

continued...
Section 10 - STABILITY AND REACTIVITY

CONDITIONS CONTRIBUTING TO INSTABILITY
• Contact with alkaline material liberates heat.
• Presence of incompatible materials.
• Product is considered stable.
• Hazardous polymerisation will not occur.
For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS
■ Harmful if swallowed.
■ Causes burns.
■ Risk of serious damage to eyes.

CHRONIC HEALTH EFFECTS
• Generally not applicable.

TOXICITY AND IRRITATION
■ unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

POLYETHYLENE GLYCOL MONOOLEATE:
PHOSPHORIC ACID:
■ The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

CLEAN N EASY RUST OFF:
■ Not available. Refer to individual constituents.

PHOSPHORIC ACID:
TOXICITY
Unreported (human) LDLo: 220 mg/kg
Oral (rat) LD50: 1530 mg/kg
Oral (rat) LD50: 3500 mg/kg* [Monsanto]*
Dermal (rabbit) LD50: >1260 mg/kg*
Inhalation (Rat) LC50: 25.5 mg/m³/4h
Inhalation (Mouse) LC50: >1260 mg/kg*

■ The material may produce severe skin irritation after prolonged or repeated exposure, and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) thickening of the epidermis.</>.
Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound.

phosphoric acid (85%)

C.I. ACID YELLOW 23:
TOXICITY
Oral (Human) TDL0: 0.014 mg/kg
Oral (Mouse) LD50: 12750 mg/kg
Oral (Rat) LD50: >2000 mg/kg
Intravenous (Rat) LD50: >2000 mg/kg

■ Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type.
Allergic reactions which develop in the respiratory passages as bronchial asthma or rhinoconjunctivitis, are mostly the result of reactions of the allergen with specific antibodies of the IgE class and belong in their reaction rates to the manifestation of the immediate type. In addition to the allergen-specific potential for causing respiratory sensitisation, the amount of the allergen, the exposure period and the genetically determined disposition of the exposed person are likely to be decisive.
Particular attention is drawn to so-called atopic diathesis which is characterised by an increased susceptibility to allergic rhinitis, allergic bronchial asthma and atopic eczema (neurodermatitis) which is associated with increased IgE synthesis.
Exogenous allergic alveolitis is induced essentially by allergen specific immune-complexes of the IgG type; cell-mediated reactions (T lymphocytes) may be involved. Such allergy is of the delayed type with onset up to four hours following exposure. Suspected allergen
* [Hawley's]

POLYETHYLENE GLYCOL MONOOLEATE:
TOXICITY
Oral (rat) LD50: 3000 mg/kg*

IRRITATION
Skin (rabbit): mild*
Eye (rabbit): Moderate to SEVERE*
Skin (rabbit): 500 mg/24h - Mild

continued...
Section 11 - TOXICOLOGICAL INFORMATION

- The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic).
- This form of dermatitis is often characterised by skin redness (erythema) and swelling epidermis.

According to a classification scheme described by the American Chemistry Council’s Aliphatic Esters Panel, Group C substances are comprised of a monocarboxylic acid (generally natural fatty acids, e.g., oleic, stearic, C6-C10 fatty acids) and a dihydroxy alcohol (glycol or diol such as ethylene glycol, polyethylene glycol, propylene glycol, 2,2-dimethyl-1,3-propanediol). These esters are often referred to as “glycol or diol esters” or as “alkylidene or alkanediyl esters”.

WATER:
- No significant acute toxicological data identified in literature search.

Section 12 - ECOLOGICAL INFORMATION

May cause long-term adverse effects in the aquatic environment.
May cause long-term adverse effects in the environment.
This material and its container must be disposed of as hazardous waste.

Ecotoxicity

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Persistence: Water/Soil</th>
<th>Persistence: Air</th>
<th>Bioaccumulation</th>
<th>Mobility</th>
</tr>
</thead>
<tbody>
<tr>
<td>phosphoric acid</td>
<td>HIGH</td>
<td>LOW</td>
<td>HIGH</td>
<td></td>
</tr>
<tr>
<td>C.I. Acid Yellow 23</td>
<td>HIGH</td>
<td>LOW</td>
<td>HIGH</td>
<td></td>
</tr>
</tbody>
</table>

Section 13 - DISPOSAL CONSIDERATIONS

- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Management Authority for disposal.
- Treat and neutralise at an effluent treatment plant.
- Use soda ash or slaked lime to neutralise.

Section 14 - TRANSPORTATION INFORMATION

Labels Required: CORROSIVE

HAZCHEM:
2R (ADG7)

ADG7:
- Class or Division: 8
- UN No.: 1805
- Special Provision: 223
- Portable Tanks & Bulk Containers:
  - T4
- Instruction:
- Packagings & IBCs - None
- Packing Instruction:
- Name and Description: PHOSPHORIC ACID, SOLUTION

Land Transport UNDG:
- Class or division: 8
- UN No.: 1805
- Subsidiary risk: None
- UN packing group: III
- Shipping Name: PHOSPHORIC ACID, SOLUTION

continued...
Section 14 - TRANSPORTATION INFORMATION

Air Transport IATA:
- ICAO/IATA Class: 8
- ICAO/IATA Subrisk: None
- UN/ID Number: 1805
- Packing Group: III
- Special provisions: A3

Shipping Name: PHOSPHORIC ACID, SOLUTION 1805

Maritime Transport IMDG:
- IMDG Class: 8
- IMDG Subrisk: None
- UN Number: 1805
- Packing Group: III
- Special provisions: 223
- EMS Number: F- A , S- B
- Limited Quantities: 5 L
- Shipping Name: PHOSPHORIC ACID SOLUTION

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE S6

REGULATIONS

phosphoric acid (CAS: 7664-38-2,16271-20-9) is found on the following regulatory lists:
- Australia Exposure Standards"
- Australia Hazardous Substances"
- Australia High Volume Industrial Chemical List (HVICL)"
- Australia Inventory of Chemical Substances (AICS)"
- Australia National Pollutant Inventory"
- Australia Standard for the Uniform Classifying of Media and Poisons (SUSMP) - Appendix E (Part 2)"
- Australia Standard for the Uniform Classifying of Media and Poisons (SUSMP) - Appendix F (Part 3)"
- Australia Standard for the Uniform Scheduling of Media and Poisons (SUSMP) - Schedule 5"
- Australia Standard for the Uniform Scheduling of Media and Poisons (SUSMP) - Schedule 6"
- GESAMP/EHS Composite List - GESAMP Hazard Profiles"
- IMO IBC Code Chapter 17: Summary of minimum requirements"
- IMOMARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk"
- International Council of Chemical Associations (ICCA) - High Production Volume List"
- OECD Representative List of High Production Volume (HPV) Chemicals"

C.I. Acid Yellow 23 (CAS: 1934-21-0,642-62-6,1342-47-8,1342-53-6,12000-64-5,50809-64-8,84842-94-4,117209-34-4,134240-82-7,139601-06-2,154881-98-8,183808-13-1,191807-79-1,389057-90-3,469888-21-9) is found on the following regulatory lists:
- Australia Inventory of Chemical Substances (AICS)"
- International Fragrance Association (IFRA) Survey: Transparency List"
- OECD Representative List of High Production Volume (HPV) Chemicals"

polyethylene glycol monooleate (CAS: 9004-96-0) is found on the following regulatory lists:
- Australia Inventory of Chemical Substances (AICS)"

water (CAS: 7732-18-5) is found on the following regulatory lists:
- Australia Inventory of Chemical Substances (AICS)"
- IMO IBC Code Chapter 18: List of products to which the Code does not apply"
- International Fragrance Association (IFRA) Survey: Transparency List"
- OECD Representative List of High Production Volume (HPV) Chemicals"

No data for Clean N Easy Rust Off (CW: 8551-37)

Section 16 - OTHER INFORMATION

INGREDIENTS WITH MULTIPLE CAS NUMBERS

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>phosphoric acid</td>
<td>7664-38-2, 16271-20-8</td>
</tr>
</tbody>
</table>

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references. A list of reference resources used to assist the committee may be found at:
www.chemwatch.net/references.

The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.
This document is copyright. Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH. TEL (+61 3) 9572 4700.

Issue Date: 21-Mar-2011
Print Date: 21-Mar-2011

This is the end of the MSDS.