

Redex
1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND SUPPLIER

Product Name	Redex
Recommended Uses	Acidic cleaner
Supplier	Hygiene Technologies Ltd
Street address	28 Rangitane Road Hastings
Telephone Number	(06) 876 4111
Emergency Telephone	NZ Fire Service - 111 National Poisons Centre – 0800 764 766 (0800 POISON)

2. HAZARDS IDENTIFICATION

Dangerous Goods This product is classified as a Dangerous Good according to NZS 5433:2020 Transport of Dangerous Goods on Land

Hazardous Substances Classified as hazardous according to criteria in GHS 7

GHS Corrosive to Metals – Category 1
Skin Corrosion – Category 1C
Serious Eye Damage – Category 1

SIGNAL WORD **DANGER**

Pictograms Corrosion



Group Standard 2020 HSR002526

Hazard Statements H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.

Precautionary Statements Prevention

P102 Keep out of reach of children.
P103 Read carefully and follow all instructions.
P234 Keep only in original packaging.
P260 Do not breathe fumes, mist, vapours or spray.
P264 Wash hands, face and all exposed skin thoroughly after handling.
P280 Wear protective gloves and protective clothing including eye and face protection.

Response

P101 If medical advice is needed, have product container or label at hand.
P390 Absorb spillage to prevent material damage.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P363 Wash contaminated clothing before reuse.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310 Immediately call a POISON CENTRE or doctor.
P321 Specific treatment (see Section 4 of this SDS).
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage P405 Store locked up.
P406 Store in corrosive resistant container with a resistant inner liner.

Disposal P501 Dispose of contents and container in accordance with local, regional, national and international regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS Number	Proportion % (w/w)
Phosphoric acid	7664-38-2	30 – 60
Ingredients classified as non-hazardous at the concentrations used.		Balance

4. FIRST AID MEASURES

For advice, contact National Poisons Information Centre (Phone 0800 764 766) or a doctor. If medical advice is needed, have product container or label at hand.

Swallowed	Rinse mouth and then drink a glass of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If vomiting occurs, give further water. Immediately call a POISON CENTRE or doctor for advice.
Eye Contact	Immediately rinse cautiously with copious volumes of water for 15 minutes, holding eyelids open and occasionally lifting the upper and lower lids. Remove contact lenses, if present and easy to do. Continue rinsing. Urgently transport to hospital or medical centre without delay.
Skin Contact	If skin or hair irritation occurs, remove all contaminated clothing and flush skin and hair with running water for at least 15 minutes. For minor skin contact, avoid spreading material on to unaffected skin. If swelling, redness, blistering or irritation occurs seek medical attention. For gross contamination, immediately drench contaminated skin and clothing with plenty of water and remove clothing. Continue to flush skin and hair with plenty of water (and soap if material is soluble). For skin burns, cover with a clean, dry dressing until medical help is available. Immediately call a POISON CENTRE or doctor for advice. Wash contaminated clothing before reuse.
Inhaled	Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a Poison Centre or doctor for advice. Allow person to assume most comfortable position and keep at rest until fully recovered. Seek medical assistance if effects persist.

Refer to National Poisons and Hazardous Chemicals Information Centre 0800 764 766.

5. FIRE-FIGHTING MEASURES

Specific Hazard	Corrosive liquid. Non-combustible material. May be corrosive to metals.
Suitable Extinguishing Media	If material is involved in a fire, use water fog (or if unavailable fine water spray), alcohol resistant foam, standard foam or dry agent (carbon dioxide, dry chemical powder).
Fire/Explosion Hazards	Non-combustible, however following evaporation of aqueous component, residual material can burn if ignited. If safe to do so, remove containers from path of fire. Fire fighters to wear self-contained breathing apparatus (SCBA) and suitable protective clothing if risk of exposure to products of decomposition.
Hazchem Code	2R

6. ACCIDENTAL RELEASE MEASURES

Contain minor spills from local drainage with any suitable bund or barrier. Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of dusts, mists or sprays. Soak up spilled product using absorbent, non-combustible material such as earth or sand. Avoid using sawdust or cellulose. When saturated, collect material into suitable, clearly labeled, dry, sealable containers and hold for safe disposal. Once clean up is complete, flush spill site with plenty of water to eliminate any residue.

For large spills from drums and IBCs, alert the local Fire Brigade. Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination. Ensure adequate ventilation. Work up wind or increase ventilation. Do not touch or walk through spilled material. Avoid contact with skin and eyes. Stop leak if safe to do so. Prevent entry into waterways, drains or confined areas. Use absorbent (earth, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. If material contaminates crops, sewers or waterways, alert local emergency services.

7. HANDLING AND STORAGE

Handling advice	Before use, carefully read the product label. Avoid contact with eyes and skin. Do not breathe fumes, mist, vapours, spray or dusts (from dried product). Wear protective gloves, protective clothing and eye and face protection (see Section 8). Contaminated work clothing should not be allowed out of the workplace.
Storage advice	Store in a cool, dry and well-ventilated area away from direct sunlight, heat sources, incompatible materials (described in Section 10) and food stuffs. Ensure containers are correctly labelled, protected from physical damage, sealed when not in use and stored upright. Check containers regularly for leaks and spills. Keep out of reach of children. Store in original packaging as approved by manufacturer. Do not use empty containers for the storage of foodstuffs.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Workplace Exposure Guidelines

National occupational exposure limits:

	TWA	STEL	NOTICES
	ppm	mg/m ³	mg/m ³
Phosphoric acid		1 mg/m ³	

As published by WorkSafe New Zealand.

WES-TWA	(Workplace Exposure Standard - Time-weighted average). The average airborne concentration of a substance calculated over an eight-hour working day.
WES-Ceiling	(Workplace Exposure Standard - Ceiling). A concentration that should not be exceeded at any time during any part of the working day.
WES-STEL	<p>(Workplace Exposure Standard - Short-term exposure limit). The 15-minute time weighted average exposure standard. Applies to any 15-minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Exposures at concentrations between the WES-TWA and the WES-STEL should be less than 15 minutes, should occur no more than four times per day, and there should be at least 60 minutes between successive exposures in this range.</p> <p>These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.</p> <p>If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.</p>
Biological Limit Values	As per the WorkSafe New Zealand the ingredients in this material do not have a biological limit allocated.
Engineering Controls	Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use only in well-ventilated areas. Use with local exhaust ventilation or while wearing appropriate respirator.

Personal Protective Equipment

OVERALLS, CHEMICAL GOGGLES, GLOVES, RUBBER BOOTS, FACE SHIELD, APRON

Personal protective equipment (PPE) must be suitable for the nature of the work and any hazard associated with the work as identified by a risk assessment. Wear overalls, chemical goggles, gloves, rubber boots, a face shield and an apron. A face shield can be used for supplementary protection of the face, however never for primary protection of the eyes. If risk of inhalation exists, wear an appropriate respirator meeting the requirements of AS/NZS 1715 and AS-NZS 1716. Available information suggests that gloves made from butyl rubber and PVC should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. When handling do not eat, drink or smoke. Wash contaminated clothing and other protective equipment before storage or reuse. Ensure that eyewash stations and safety showers are close to the workstation location.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid
Odour	Characteristic
Colour	Clear, red
Solubility	Miscible in water
Relative Vapour Density	<1
Specific Gravity	1.32
Flash Point (°C)	N App
pH	2 (1% aqueous solution)
Freezing Point	N Av
Boiling Point	N Av
Vapour Pressure	2.3 kPa (water)
Viscosity	N Av

10. STABILITY AND REACTIVITY

Stability	This material is thermally stable when stored and used as directed.
Conditions to avoid	Elevated temperatures and sources of ignition
Incompatible materials	Strong bases, oxidising agents, metals
Reactivity	Attacks metals in the presence of moisture.
Hazardous Decomposition Products	Oxides of carbon and phosphorus

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:

Inhaled	Material may be corrosive to mucous membranes and respiratory tract.
Skin Contact	Corrosive to skin. Contact with skin will result in severe burns.
Swallowed	Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract.
Eye Contact	Corrosive to eyes. Contact with eyes will result in serious eye damage including redness, pain, blurred vision and severe corneal burns. Contamination of eyes can result in permanent injury.
Long Term Effects	No information available for the product.

Acute Toxicity

Inhalation: This material has been classified as non-hazardous.

Skin contact: This material has been classified as non-hazardous.

Ingestion: This material has been classified as non-hazardous.

Corrosion/Irritancy: Eye: this material has been classified as a Category 1 Hazard (irreversible effects to eyes). Causes serious eye damage. Skin: this material has been classified as a Category 1C Hazard (irreversible effects to skin). Causes severe skin burns.

Sensitisation: Inhalation: this material has been classified as not a respiratory sensitiser. Skin: this material has been classified as not a skin sensitiser.

Aspiration hazard: This material has been classified as non-hazardous.

Specific target organ toxicity (single exposure): This material has been classified as non-hazardous.

Chronic Toxicity

Mutagenicity: This material has been classified as non-hazardous.

Carcinogenicity: This material has been classified as non-hazardous.

Reproductive toxicity (including via lactation): This material has been classified as non-hazardous.

Specific target organ toxicity (repeat exposure): This material has been classified as a Category 2 Hazard. May cause damage to organs through prolonged or repeated exposure.

12. ECOTOXICOLOGICAL INFORMATION

Aquatic toxicity	May be harmful to aquatic life due to low pH.
Ecotoxicity	No information available
Persistence/Degradability	No information available
Bioaccumulation Potential	No information available
Mobility	No information available

13. DISPOSAL

Recycle wherever possible. Whatever cannot be saved for recovery or recycling should be sent to an approved waste disposal contractor for disposal in an approved waste facility. Processing, use or contamination of this product may change the waste management options. Dispose of container and unused contents using an approved waste disposal contractor. Care should be taken to ensure compliance with national and local regulations. This product is NOT for unauthorised disposal by either landfill or via municipal sewers. Not to be discharged to drains, natural streams or rivers.

Special Precautions: Empty drums should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor. Observe all safeguards on label and in this SDS until container is cleaned, reconditioned or destroyed. Decontaminate empty containers with water. Dispose of container and unused contents in accordance with local authority requirements.

14. TRANSPORT INFORMATION**Transport of Dangerous Goods Pictograms:**

Classified as a Dangerous Good according to NZS 5433:2020 Transport of Dangerous Goods on Land.

Road and Rail Transport

UN No: 1805
Dangerous Goods Class: 8
Packing Group: III
Hazchem Code: 2R
Emergency Response Guide No 154

Proper Shipping Name: PHOSPHORIC ACID, SOLUTION



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) or food and food packaging in any quantity. Note 1: Concentrated strong alkalis are incompatible with concentrated strong acids. Note 2: Concentrated strong acids are incompatible with concentrated strong alkalis. Note 3: Acids are incompatible with Dangerous Goods of Class 6 which are cyanides. 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 No: 1805
Dangerous Goods Class: 8
Packing Group: III

Proper Shipping Name: PHOPHORIC ACID, SOLUTION



Air Transport

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

UN No: 1805
Dangerous Goods Class: 8
Packing Group: III

Proper Shipping Name: PHOPHORIC ACID, SOLUTION



15. REGULATORY INFORMATION

ERMA (NZ) Approval Code N/A

Group Standard 2020 HSR002526 – Cleaning Products (Corrosive) Group Standard 2020

For more information refer to the ERMA website: www.epa.govt.nz

16. OTHER INFORMATION

Revision 3
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