

SAFETY DATA SHEET



RUST REMOVER

ACTICHEM PTY LTD

Catalogue number: CS492

Version No: 4.1.1

Issue date: 08/04/2025

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

Product name	RUST REMOVER
Product code	CS492
Pack sizes	500ml and 5L

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

Relevant identified uses	High performance rust spot remover
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Details of the manufacturer/importer

Registered company name	ACTICHEM PTY LTD	CLEANING SYSTEMS LIMITED
Address	11 Gamma Close, Beresfield 2322 NSW Australia	331A East Tamaki Road, East Tamaki, Auckland, 2013, NZ
Telephone	(02) 4966 5516	+64 9579 4114, 0800 100 117
Website	www.actichem.com.au	www.cleaningsystems.co.nz
Email	info@actichem.com.au	sales@cleaningsystems.co.nz

Emergency telephone number

Association / Organisation	National Poisons Centre
Emergency telephone numbers	0800-764-766 (0800 POISON)
Other emergency telephone numbers	Not Available

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

HAZARDOUS CHEMICAL. DANGEROUS GOODS. According to the criteria of New Zealand HSNO Hazardous Substances (Hazard Classification) Notice 2020 and New Zealand NZS5433.

Hazard Classification	Serious Eye Damage Category 1, Skin Corrosion/Irritation Category 1B, Acute Toxicity (Inhalation) Category 4, Acute Toxicity (Oral) Category 4
	Classification drawn from HCIS, ECHA C&L Inventory and HSNO CCID.

Label elements

Hazard pictograms	
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SIGNAL WORD	DANGER
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Hazard statement(s)

H314	Causes severe skin burns and eye damage
H302	Harmful if swallowed
H332	Harmful if inhaled.
AUH071	Corrosive to the respiratory tract

Precautionary statement(s) Prevention

P273	Avoid release to the environment.
P280	Wear protective gloves and eye protection.
P260	Do not breathe fumes / vapours / spray
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P264	Wash exposed skin thoroughly after handling

Precautionary statement(s) Response

P301+P310+P330+P331	IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting.
P303+P310+P363+P361+P353	IF ON SKIN (or hair): Immediately call a POISON CENTER or doctor. Take off immediately all contaminated clothing and wash before reuse. Rinse skin with water/shower.
P305+P310+P351+P338	IF IN EYES: Immediately call a POISON CENTER or doctor. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304+P310+P340	IF INHALED: Immediately call a POISON CENTER or doctor. Remove person to fresh air and keep in a position comfortable for breathing.

Precautionary statement(s) Storage

P405	Store locked up
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Precautionary statement(s) Disposal

P501	Dispose of contents/container in accordance with local regulations.
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SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
7664-38-2	<10	<u>phosphoric acid</u>
1341-49-7	<1	<u>ammonium bifluoride</u>
144-62-7	<10	<u>oxalic acid</u>
111-76-2	<10	<u>ethylene glycol monobutyl ether</u>
2235-54-3	<10	<u>ammonium lauryl sulfate</u>
2809-21-4	<10	<u>hydroxyethanediphosphonic acid</u>

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact	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. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Continue rinsing for 20 minutes or until told to stop by a POISON CENTRE or doctor. Seek medical advice / attention.
Inhalation	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. Transport to hospital, or doctor, without delay.
Ingestion	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. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Transport to hospital or doctor without delay.

Indication of any immediate medical attention and special treatment needed.

Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

Extinguishing media	Foam. Dry chemical powder. BCF (where regulations permit). Carbon dioxide. Water spray or fog
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Special hazards arising from the substrate or mixture

Fire incompatibility	None known
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Advice for firefighters

Fire Fighting	Alert Fire Brigade and tell them location and nature of hazard Wear breathing apparatus plus protective gloves in the event of a fire. Prevent, by any means available, spillage from entering drains or water courses. Use firefighting procedures suitable for surrounding area. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use.
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. May emit corrosive, poisonous fumes. May emit acrid smoke. Decomposition may produce toxic fumes of phosphorus oxides (POx).
HAZCHEM	2X

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Minor Spills	Clean up all spills immediately. Avoid contact with skin and eyes. Wipe up. Place in a suitable, labelled container for waste disposal.
Major Spills	Wear protective clothing, gloves and eye protection Prevent, by any means available, spillage from entering drains or water course. Stop leak if safe to do so. Absorb on sand, dirt, vermiculite or similar absorbent material. Place into labelled drums and dispose of according to local government regulations. Immediately notify emergency services (Police or Fire Brigade) if the spill is too large for you to safely and effectively handle.
PPE	Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	DO NOT allow clothing wet with material to stay in contact with skin. Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. When handling, DO NOT eat, drink or smoke. Keep containers securely sealed when not in use. Avoid physical damage to containers. WARNING: To avoid violent reaction, ALWAYS add material to water and NEVER water to material.
Other information	

Conditions for safe storage, including any incompatibilities

Suitable container	DO NOT use glass, aluminium or galvanised containers Polyethylene or polypropylene container. Packing as recommended by manufacturer. Check all containers are clearly labelled and free from leaks.
Storage incompatibility	Avoid storing with strong bases, strong oxidisers, chlorites and hypochlorites.

PACKAGE MATERIAL INCOMPATIBILITIES

Not Available

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

Source	Ingredient	Material name	TWA	STEL	Notes
EH40/2005 Workplace Exposure Limits	orthophosphoric acid	phosphoric acid	1 mg/m3	2 mg/m3	Not Available
EH40/2005 Workplace Exposure Limits	ethylene glycol monobutyl ether	2-Butoxyethanol	123 mg/m3 / 25 ppm	246 mg/m3 / 50 ppm	Sk
EH40/2005 Workplace Exposure Limits	oxalic acid	Oxalic acid	1 mg/m3	2 mg/m3	Not Available

Exposure controls

Appropriate engineering controls	Maintain adequate ventilation at all times. If ventilation is poor the use of a local exhaust ventilation system is recommended.
Personal protection	
Eye and face protection	Safety glasses with side shields. OR Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. 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

Skin protection	See Hand protection below
Hands/feet protection	Wear chemical protective gloves, Neoprene or butyl are recommended for this application
Body protection	See Other protection below
Other protection	Barrier cream. Skin cleansing cream. Eye wash unit.
Thermal hazards	Not Available

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Opaque gel		
Physical state	Gel	Relative density (Water = 1)	1.05
Odour	Benzaldehyde	Viscosity (cSt)	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	2-3	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Partition coefficient n-octanol / water	Not Available
Initial boiling point and boiling range (°C)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Flash point (°C)	Not Applicable	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Non flammable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Applicable	Molecular weight (g/mol)	Not Available
Lower Explosive Limit(%)	Not Applicable	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water (g/L)	Miscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	Corrosive acids can cause irritation of the respiratory tract, with coughing, choking and mucous membrane damage. There may be dizziness, headache, nausea and weakness.
Ingestion	Ingestion of acidic corrosives may produce burns around and in the mouth, the throat and oesophagus. Immediate pain and difficulties in swallowing and speaking may also be evident. Ingestion of large quantity of phosphoric acid may cause severe abdominal pains, thirst, acidemia, difficult breathing, convulsions, collapse, shock and death. Although less hazardous than nitric and sulfuric acid, phosphoric acid has equal corrosive action upon ingestion.
Skin Contact	Skin contact with the material may be harmful; systemic effects may result following absorption The material may cause irritation to the skin. Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye	Vapours from the product may produce transient discomfort to the eye characterised by tearing or conjunctival redness (as with windburn). Splashes may cause severe eye irritation, possible corneal burns and eye damage. Eye contact may cause tearing or
Chronic	Repeated exposure or prolonged contact may produce dermatitis, and conjunctivitis.

Toxicological effects of ingredients

oxalic acid	Acute toxicity	Oral LD50 (rat) 475 mg/kg Dermal LD50 (rabbit) 2000 mg/kg
	Skin corrosion/irritation	Contact with skin may result in irritation. Solutions of 5% to 10% oxalic acid are irritating to the skin after prolonged exposure and can cause corrosive injury.
	Eye damage/irritation	A severe eye irritant. Contamination of eyes can result in permanent injury.
	Respiratory/skin sensitization	Not sensitising
	Germ cell mutagenicity	Non-mutagenic
	Carcinogenicity	No available data
	Reproductive toxicity	Not toxic to reproduction
	STOT (single exposure)	Exposure to this compound can result in systemic effects including kidney damage, muscle twitching , cramps and nervous system complaints.
	STOT (repeated exposure)	Long term exposure can result in kidney stones and stone formation in the urinary tract.
	Aspiration toxicity	No available data
phosphoric acid	Acute toxicity	Oral LD50 (rat): 1250 mg/kg Dermal LD50 (rabbit): 2740 mg/kg
	Skin corrosion/irritation	Corrosive to skin - may cause skin burns
	Eye damage/irritation	A severe eye irritant. Corrosive to eyes; contact can cause corneal burns. Contamination of eyes can result in permanent injury.
	Respiratory/skin sensitization	No data available
	Germ cell mutagenicity	No data available
	Carcinogenicity	No data available
	Reproductive toxicity	No data available
	STOT (single exposure)	No data available
	STOT (repeated exposure)	Prolonged exposures can cause necrosis of nasal passages and oedema of lungs
	Aspiration toxicity	No data available
ethylene glycol monobutyl ether	Acute toxicity	Oral LD50 (guinea pig) 1414 mg/kg Dermal LD50 (guinea pig) >2000 mg/kg Inhalation LC0 >3.1 mg/l>641 ppm 1h
	Skin corrosion/irritation	Causes skin irritation.
	Eye damage/irritation	Causes serious eye irritation.
	Respiratory/skin sensitization	Not classified No study available.
	Germ cell mutagenicity	Not classified
	Carcinogenicity	Not classified
	Reproductive toxicity	Not classified
	STOT (single exposure)	High concentrations may cause central nervous system depression
	STOT (repeated exposure)	Based on repeated exposure toxicity values, not classified
	Aspiration toxicity	Based on physico-chemical values or lack of human evidence,not classified
ammonium lauryl sulfate	Acute toxicity	no data available
	Skin corrosion/irritation	May cause skin irritation
	Eye damage/irritation	May cause eye irritation
	Respiratory/skin sensitization	no data available
	Germ cell mutagenicity	no data available
	Carcinogenicity	no data available
	Reproductive toxicity	no data available
	STOT (single exposure)	no data available
	STOT (repeated exposure)	no data available
	Aspiration toxicity	no data available
ammonium bifluoride	Acute toxicity	Oral LD50 (rat) 60 – 130 mg/kg
	Skin corrosion/irritation	Causes skin burns. Contact with liquid is corrosive and causes severe burns and ulceration
	Eye damage/irritation	Causes eye burns
	Respiratory/skin sensitization	no data available
	Germ cell mutagenicity	no data available
	Carcinogenicity	no data available
	Reproductive toxicity	no data available
	STOT (single exposure)	no data available
	STOT (repeated exposure)	Chronic inhalation and may cause chronic fluoride poisoning (fluorosis)
	Aspiration toxicity	no data available
hydroxyethanediphosphonic acid	Acute toxicity	Oral LD50 (rat) 1440 – 3550 mg/kg
	Skin corrosion/irritation	Causes severe skin burns
	Eye damage/irritation	Causes serious eye damage
	Respiratory/skin sensitization	No information available
	Germ cell mutagenicity	Not considered to be genotoxic
	Carcinogenicity	No information available
	Reproductive toxicity	Not considered to cause reproductive or developmental toxicity
	STOT (single exposure)	Inhalation may cause burning of the nose and throat, nausea, vomiting and diarrhoea
	STOT (repeated exposure)	No information available
	Aspiration toxicity	No information available

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

	Endpoint	Duration (Hr.)	Species	Value
ammonium bifluoride	LC50	96	Fish	0.068mg/L
	EC50	48	Crustacea	97mg/L
	EC50	96	Algae or other aquatic plants	43mg/L
	NOEC	96	Crustacea	0.79mg/L
phosphoric acid	LC50	96	Fish	-43-72mg/L
	EC50	48	Crustacea	>5.62mg/L
	EC50	72	Algae or other aquatic plants	77.9mg/L
	NOEC	48	Crustacea	5.62mg/L
ethylene glycol monobutyl ether	LC50	96	Fish	1250-mg/L
	EC50	48	Crustacea	164mg/L
	EC50	72	Algae or other aquatic plants	623mg/L
	NOEL	336	Not Available	49.50000-mg/L
ammonium lauryl sulfate	Not Available	Not Available	Not Available	Not Available
oxalic acid	EC50	48	Crustacea	-125-150mg/L
	EC50	72	Algae or other aquatic plants	>18.39-<19.92mg/L
	NOEC	0.33	Algae or other aquatic plants	-0.002-0.003e mol/dm ³
hydroxyethanediphosphonic acid	LC50	96	Fish	195mg/L
	EC50	48	Crustacea	409mg/L
	EC50	96	Algae or other aquatic plants	3mg/L
	EC0	24	Crustacea	=39.6mg/L
	NOEC	504	Crustacea	0.1mg/L

On the basis of available evidence concerning either toxicity, persistence, potential to accumulate and or observed environmental fate and behaviour, the material may present a danger, immediate or long-term and /or delayed, to the structure and/ or functioning of natural ecosystems. Prevent, by any means available, spillage from entering drains or water courses.

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
phosphoric acid	HIGH	HIGH
ethylene glycol monobutyl ether	LOW (Half-life = 56 days)	LOW (Half-life = 1.37 days)
oxalic acid	LOW	LOW
hydroxyethanediphosphonic acid	HIGH	HIGH

Bio accumulative potential

Ingredient	Bioaccumulation
phosphoric acid	LOW (LogKOW = 0.7699)
ethylene glycol monobutyl ether	LOW (BCF = 2.51)
oxalic acid	LOW (LogKOW = -1.7365)
hydroxyethanediphosphonic acid	LOW (BCF = 71)

Mobility in soil

Ingredient	Mobility
phosphoric acid	HIGH (KOC = 1)
ethylene glycol monobutyl ether	HIGH (KOC = 1)
oxalic acid	HIGH (KOC = 1.895)
hydroxyethanediphosphonic acid	LOW (KOC = 20.81)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / packaging disposal	Recycle containers whenever possible. Product residues and containers should be disposed of in accordance with local government regulations.
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SECTION 14 TRANSPORT INFORMATION

Labels Required

Marine Pollutant	NO
HAZCHEM	2X

Land transport NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS IN PACK SIZES OF 5L OR LESS

SECTION 15 REGULATORY INFORMATION

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

PHOSPHORIC ACID (7664-38-2) IS FOUND ON THE FOLLOWING REGULATORY LISTS

New Zealand Inventory of Chemicals (NZIoC)
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

AMMONIUM BIFLUORIDE (1341-49-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS

New Zealand Inventory of Chemicals (NZIoC)
Chemical Classification and Information Database (CCID)
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 7
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

OXALIC ACID (144-62-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS

New Zealand Inventory of Chemicals (NZIoC)
Chemical Classification and Information Database (CCID)
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6

ETHYLENE GLYCOL MONOBUTYL ETHER IS FOUND ON THE FOLLOWING REGULATORY LISTS

New Zealand Inventory of Chemicals (NZIoC)
Chemical Classification and Information Database (CCID)
Approved hazardous substances with controls
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5
International Agency for Research on Cancer (IARC) – Agents classified by AIRC monographs

AMMONIUM LAURYL SULFATE IS FOUND ON THE FOLLOWING REGULATORY LISTS

New Zealand Inventory of Chemicals (NZIoC)
Chemical Classification and Information Database (CCID)

HYDROXYETHANEDIPHOSPHONIC ACID IS FOUND ON THE FOLLOWING REGULATORY LISTS

New Zealand Inventory of Chemicals (NZIoC)
Chemical Classification and Information Database (CCID)
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4

NEW ZEALAND HSNO ACT 1996

Substance approval - Cleaning Products (Corrosive) Group Standard | HSR002526 | October 2020

SECTION 16 OTHER INFORMATION

Revision Schedule

Revision Date	08/04/2025
Initial Date	18/11/2016

SDS Version Summary

Version	Issue Date	Sections Updated
3.1	08/07/2021	Sections 2, 3, 4, 5, 7, 11, 12, 15, 16 have been updated or corrected
4.1	15/12/2021	Sections 1, 2, 8, 15.
4.1.1	08/04/2025	Section 1

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources such as the ECHA C&L Chemical Inventory, HSNO (CCID) New Zealand, AICIS and HCIS Australia

DISCLAIMER: While the information in this Safety Data Sheet (SDS) is believed to be true and accurate based on the current level of knowledge available to us, the author makes no representations as to its accuracy or sufficiency. Conditions of use are beyond the control of ACTICHEM PTY LTD and therefore the users are responsible to verify this data under their own particular conditions of use, applications and regulations to determine whether the product is suitable for their particular purpose and they assume all risks of their use, handling, disposal, reliance upon, publication or use of the information contained herein. This information applies only to the product designated above and does not necessarily apply to its use in combination with other materials, products, chemical compounds, structures, or processes

Definitions and abbreviations

PC-TWA:	Permissible Concentration-Time Weighted Average
PC-STEL:	Permissible Concentration-Short Term Exposure Limit
IARC:	International Agency for Research on Cancer
ACGIH:	American Conference of Government Industrial Hygienists
STEL:	Short Term Exposure Limit
TEEL:	Temporary Emergency Exposure Limit
IDLH:	Immediate Danger to Life or Health Concentrations
OSF:	Odour Safety Factor
NOAEL:	No Observed Effects Level
TLV:	Threshold Limit Value
LOD:	Limit Of Detection
OTV:	Odour Threshold Value
BCF:	Bio Concentration Factors
BEI:	Biological Exposure Index

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End of SDS