



Section 01 - Identification

Product Identifier	Rust Remover
Other Means of Identification	None
Product Use and Restrictions on Use	Removes most dirt, road film and release deposits from aluminum and other soft metal alloy surfaces.
Initial Supplier Identifier	Advance Chemicals Ltd. 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7
Prepared By	ClearTech Industries Inc. Technical Writer Phone: 1 (800) 387-7503
24-Hour Emergency Phone	Phone: 1 (306) 664 – 2522

Section 02 - Hazard Identification

GHS-Classification

Skin Corrosion/Irritation	Category 1B
Serious Eye Damage/Irritation	Category 1

Physical Hazards

Corrosive to Metals	Category 1
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Danger

Hazards Statements

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

Pictograms



Precautionary Statements

P234 – Keep only in original container.
P260 – Do not breathe mist, vapours or spray.
P264 – Wash affected body parts thoroughly after handling.
P280 – Wear protective gloves, protective clothing, eye protection, and face protection.

P303 + P361 + P353 – IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P363 – Wash contaminated clothing before reuse.

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P301 +P330 + P331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P310 – Immediately call a POISON CENTER or doctor/physician.

P304 + P340 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P390 – Absorb spillage to prevent material damage.

P405 – Store locked up.

P501 – Dispose of contents/container in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Section 03 - Composition / Information on Ingredients

Chemical Name	CAS Number	Weight %	Unique Identifiers
Phosphoric Acid	7664-38-2	10-25%	
Water and/or ingredients not classified as hazardous under the Hazardous Products Regulations		75-90%	

Section 04 - First Aid Measures

Inhalation	Remove victim to fresh air. Give artificial respiration only if victim has stopped breathing. If breathing is difficult, give oxygen. Seek immediate medical attention.
Skin Contact / Absorption	Remove contaminated clothing. Immediately rinse skin with lukewarm, gently flowing water for at least 30 minutes. DO NOT INTERRUPT FLUSHING. Seek immediate medical attention. Completely decontaminate clothing, shoes and leather goods before re-use or discard.
Eye Contact	Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes, while holding the eyelid(s) open to ensure complete irrigation of the eye tissue. If a contact lens is present, remove if easy to do so. Neutral saline solution may be used as soon as it is available. Seek immediate medical attention.
Ingestion	NEVER give anything by mouth if victim is rapidly losing consciousness, is unconscious or convulsing. Have victim rins mouth thoroughly with water. DO NOT INDUCE VOMITING. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Have victim rinse mouh with water again. Seek immediate medical attention.
Additional Information	Provide general supportive measures. Consult a doctor and/or the nearest Poison Control Centre for all exposures except minor instances of inhalation or skin contact.

Section 05 - Fire Fighting Measures

Suitable Extinguishing Media	Use extinguishing media suitable for surrounding fire.
Unsuitable Extinguishing Media	Not Available
Specific Hazards Arising From the Chemical	Phosphoric acid can react with most metals to produce highly flammable hydrogen gas, which may explode if ignited. During a fire, irritating/toxic phosphorus oxides may be generated. Closed containers may rupture violently in the heat of a fire.
Special Protective Equipment and Precautions for Fire-Fighters	Wear NIOSH-approved self-contained breathing apparatus and protective gear.

Section 06 - Accidental Release Measures

Personal Precautions / Protective Equipment / Emergency Procedures	Wear appropriate personal protective equipment. Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so. Flush with water to remove any residue.
Environmental Precautions	Prevent material from entering sewers or confined spaces. Notify government environmental agencies if material is released into the environment.
Methods and Materials for Containment and Cleaning Up	Contain spill with earth, sand, or absorbent material which does not react with spilled material. Do not get water inside containers or spilled material. Contaminated absorbent material may pose the same hazards as the spilled product. SMALL SPILLS: Neutralize with sodium bicarbonate (NaHCO ₃) or a mixture of soda ash/slaked lime. Shovel residue into containers for disposal. LARGE SPILLS: Recover liquid if it can be done safely. Place in suitable, covered, labelled containers. Neutralize the solution remaining after recovery, or the entire spill, cautiously with lime (CaO or soda ash (Na ₂ CO ₃)). NOTE: Lime is the preferred neutralizing agent because of the low solubility of the calcium phosphate formed. The residue (calcium phosphate) can then be shovelled into containers for disposal.

Section 07 - Handling and Storage

Precautions for Safe Handling	This material is CORROSIVE to the eyes and skin. Phosphoric acid will give off flammable hydrogen gas on contact with many metals. Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure.
Conditions for Safe Storage	Store in a cool, dry, well-ventilated area, out of direct sunlight. Keep quantities stored as small as possible. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Store away from incompatible materials. Walls, floors, shelving, lighting and ventilation systems in storage area should be made from materials that resist attack from phosphoric acid.
Incompatibilities	Metals, strong bases, sulphides, cyanides, fluorides, carbides, silicates and strong oxidizing agents.

Section 08 - Exposure Controls and Personal Protection

Exposure Limit(s)

Component	Regulation	Type of Listing	Value
Phosphoric Acid	ACGIH	TLV-TWA	1mg/m ³
	ACGIH	TLV-STEL	3mg/m ³
	OSHA	PEL-TWA	1mg/m ³
	OSHA	PEL-STEL	3mg/m ³

Engineering Control(s)

Ventilation Requirements	Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions must be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.
Other	Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.

Protective Equipment

Eyes/Face	Chemical goggles and/or a face shield should be worn while product is being handled. Contact lenses should not be worn as they may contribute to severe eye injury.
Hand Protection	Impervious gloves of chemically resistant material (rubber or PVC) should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.
Skin and Body Protection	Body suits, aprons, and/or coveralls of chemical resistant materials should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse. Impervious boots of chemically resistant material should be worn at all times.
Respiratory Protection	<p>NIOSH/OSHA RECOMMENDATIONS FOR PHOSPHORIC ACID CONCENTRATIONS IN AIR:</p> <p>UP TO 25 mg/m³: (APF=25) SAR operated in a continuous flow mode. UP TO 50 mg/m³: (APF=50) Full-face piece respirator with an N100, R100, or P100 filter; or full-face piece SCBA; or full-face piece SAR. UP TO 1000 mg/m³: (APF=2000) Positive pressure, full-face piece SAR.</p> <p>EMERGENCY OR PLANNED ENTRY INTO UNKNOWN CONCENTRATIONS OR IDLH CONDITIONS: (APF=10000) Positive pressure, full-face piece SCBA; or positive pressure, full-face piece SAR with an auxiliary positive pressure SCBA.</p> <p>ESCAPE: (APF=50) Full-face piece respirator with high-efficiency particulate filter(s); or escape-type SCBA.</p>
Thermal Hazards	Not Available

Section 09 - Physical and Chemical Properties

Appearance

Physical State	Liquid
Colour	Blue
Odour	Slight acid odour
Odour Threshold	Not Available

Property

pH	2-2.2
Melting Point/Freezing Point	Not Available
Initial Boiling Point and Boiling Range	Not Available
Flash Point	Not Applicable
Evaporation Rate	Not Available
Flammability	Non-flammable
Upper Flammable Limit	Not Applicable
Lower Flammable Limit	Not Applicable
Vapour Pressure (mm Hg, 20°C)	Not Available

Vapour Density (Air=1)	3.38
Relative Density	Not Available
Solubility(ies)	Completely soluble in water.
Partition Coefficient: n-octanol/water	Log P _{ow} = -0.77
Auto-ignition Temperature	Not Applicable
Decomposition Temperature	Not Available
Viscosity	Not Available
Explosive Properties	Not Available
Specific Gravity (Water=1)	1.102 @ 20°C
% Volatiles by Volume	Not Available
Formula	Mixture
Molecular Weight	98.0

Section 10 - Stability and Reactivity

Reactivity	May also attack porcelain, and granite ware when hot and earthenware and glass above 200°C.
Stability	Normally stable.
Possibility of Hazardous Reactions	None reported.
Conditions to Avoid	Heat.
Incompatible Materials	Metals, strong bases, sulphides, cyanides, fluorides, carbides, silicates and strong oxidizing agents.
Hazardous Decomposition Products	During a fire, or when heated to decomposition, irritating/toxic phosphorus oxides, such as phosphorus pentoxide may be generated.

Section 11 - Toxicological Information

Acute Toxicity Estimate

Component	Oral LD₅₀	Dermal LD₅₀	Inhalation LC₅₀
Rust Remover	6.1 g/kg (rat)	5 g/kg (rabbit)	852 mg/m ³ (rat, 4hr)

This product has been classified in accordance with the Hazardous Products Regulations using ATE formula documented in the GHS standard.

Chronic Toxicity – Carcinogenicity

Component	IARC
Rust Remover	None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

Skin Corrosion/Irritation	Corrosive. Capable of producing severe burns, blisters, ulcers and permanent scarring.
Ingestion	Can cause burns to the mouth, lips, esophagus and stomach; abdominal pain; nausea; vomiting; diarrhea and death.
Inhalation	Mists can probably cause severe irritation of the nose, throat and respiratory tract.
Serious Eye Damage/Irritation	Corrosive. Capable of producing serious eye burns and permanent damage, including blindness.
Respiratory or Skin Sensitization	Not Available
Germ Cell Mutagenicity	Not expected to be mutagenic.
Reproductive Toxicity	Not known to cause reproductive toxicity.
STOT-Single Exposure	May cause respiratory irritation.
STOT-Repeated Exposure	Repeated skin contact with dilute solution can cause dry, red, cracked skin.
Aspiration Hazard	Not Available
Synergistic Materials	Not Available

Section 12 – Ecological Information

Ecotoxicity

Component	Toxicity to Algae	Toxicity to Fish	Toxicity to Daphnia and Other Aquatic Invertebrates
Phosphoric Acid	EC ₅₀ (Algae, 72hr): 32mg/L	LC ₅₀ (Oryzia latipes, 96hr): 75.1mg/L	EC ₅₀ (Daphnia magna, 48hr): >376mg/L
Biodegradability	Not Available		
Bioaccumulation	Not Available		
Mobility	Not Available		
Other Adverse Effects	Not Available		

Section 13 – Disposal Considerations

Waste From Residues/Unused Products	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.
Contaminated Packaging	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Section 14 – Transport Information

UN Number	UN1805
UN Proper Shipping Name	PHOSPHORIC ACID SOLUTION
Transport Hazard Class(es)	8
Packaging Group	III
Environmental Hazards	Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.
Special Precautions	Not Available
Transport in Bulk	Not Available
Additional Information	<u>Packing Group</u> III
	<u>Limited Quantity Index</u> 5 L

TDG

Other Secure containers (full and/or empty) with suitable hold down devices during shipment and ensure all caps, valves, or closures are secured in the closed position.

TDG PRODUCT CLASSIFICATION: This product has been classified on the preparation date specified at section 14 of this MSDS / SDS, for transportation in accordance with the requirements of part 2 of the Transportation of Dangerous Goods Regulations. If applicable, testing and/or published test data regarding the classification of this product are listed in the references at section 16 of this MSDS / SDS.

Section 15 – Regulatory Information

NOTE: THE PRODUCT LISTED ON THIS SDS HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN CONTROLLED PRODUCTS REGULATIONS. THIS SDS CONTAINS ALL INFORMATION REQUIRED BY THOSE REGULATIONS.

Section 16 – Other Information

Preparation Date October 23, 2015

Revision Date May 23, 2018

Note: The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations.

Attention: Receiver of the chemical goods / SDS coordinator

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If you have any questions or concerns please call our customer service center.

References:

- 1) CHEMINFO
- 2) eChemPortal
- 3) TOXNET
- 4) Transportation of Dangerous Goods Canada
- 5) HSDB
- 6) ECHA
- 7) PAN

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