

# SAFETY DATA SHEET – 16 SECTIONS

## RETROPOL ELECTROPOLISHING SYSTEMS ELECTROLYTE SOLUTION

### SECTION 1: IDENTIFICATION OF THE MATERIAL AND MANUFACTURER

**Product Identifier:** Retropol Electropolishing Systems Electrolyte Solution.

**Uses:** For use with Retropol Electropolishing Systems Rapid-Clean Brush stainless steel weld cleaning system

**Manufacturer Details:** Retropol Electropolishing Systems. 3 Springwood Road Underwood, QLD 4119.

**Emergency Contact:** Ph: 13 11 26 (Poisons Information Center)

### SECTION 2: HAZARDS IDENTIFICATION

**Classification of Substance:** CLASSIFIED AS HAZARDOUS ACCORDING TO HAZARDOUS SUBSTANCE INFORMATION SYSTEM (HSIS) (SAFE WORK AUSTRALIA).

**GHS Classification:** Irritating to eyes. Irritating to skin.

**Label Elements:**

**Signal Word:** CAUTION

**Pictogram:**



**Hazard Statements:**

H315 Causes skin irritation  
H319 Causes severe eye irritation  
H290 May be corrosive to metals

**Precautionary Statements:**

P234 Keep only in original container  
P264 Wash thoroughly after handling  
P261 Avoid breathing vapours  
P271 Use only outdoors or in well ventilated areas  
P280 Wear protective gloves, protective clothing, eye protection & face protection

**Response Statements:**

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.  
P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P363 Wash contaminated clothing before re-use.

**Storage Statements:** None allocated.

**Disposal Statements:**

P501 Dispose of contents/container in accordance with relevant regulations.

**Other Hazards:** No information provided.

**SECTION 3: COMPOSITION / INGREDIENTS**

<b>Ingredients:</b>	<b>CAS Number:</b>	<b>EC Number:</b>	<b>Content:</b>
Phosphoric Acid	7664-38-2	231-633-2	>10% CONC <25%
Citric Acid	77-92-9	201-069-1	>10% CONC <30%
Water	7732-18-5	---	Remainder

**SECTION 4: FIRST AID MEASURES****Description of necessary first aid measures:**

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

**INGESTION:** If swallowed do not induce vomiting. Contact Poisons Information Center (Ph. 13 11 26).

**INHALATION:** If inhaled remove exposed individual from contaminated area into fresh air. Apply artificial respiration if not breathing.

**SKIN:** If skin or hair contact occurs wash thoroughly with soap and water and see physician if irritation persists.

**Symptoms and Effects: Acute and Delayed.**

Eye Damage / Irritation.

Skin irritation from prolonged exposure.

**Medical Attention and Special Treatment**

Corrosive poisoning treatment (ingestion) – Seek immediate medical treatment. DO NOT INDUCE VOMITING as it may increase oesophageal damage. DO NOT ATTEMPT GASTRIC LAVAGE. Dilute ingested substance by drinking water or milk.

**SECTION 5: FIRE FIGHTING MEASURES:**

**Suitable Extinguishing Equipment:** Product is non-flammable. Use relevant fire fighting equipment for surrounding fire.

**Special Hazards:** May produce toxic fumes or gasses (phosphorous oxides) if heated to decomposition. May produce flammable hydrogen gas if exposed to metals at elevated temperatures.

**Special Protective Equipment and Precautions for Fire Fighters:** Treat as per requirements for surrounding fire.

**HAZCHEM Code:**

2R

2 Fine water spray

R Wear liquid-tight chemical protective clothing and breathing apparatus.

Dilute spill and run-off.

**SECTION 6: ACCIDENTAL RELEASE MEASURES:****Personal Precautions, Protective Equipment and Emergency Procedures:**

User must wear personal protective equipment (PPE) detailed in section 8 of this Safety Data Sheet (SDS).

Provide sufficient ventilation.

**Environmental Precautions:** Do not allow product to enter drains or waterways.

**Methods and Materials for containment and clean-up:** Contain spillage. Small spills may be mopped up and contaminated are neutralised with 10% sodium bicarbonate / water solution. Larger spillages should be contained and use of absorbant material used to remove excess of spillage, then area neutralised and decontaminated with 10% sodium bicarbonate / water solution.

## **SECTION 7: HANDLING AND STORAGE:**

**Precautions for safe handling:** Read product label before use. Practice safe work methods, paying attention to use of PPE and good hygiene practices. Do not eat/drink/smoke while using this product, or allow others to eat/drink/smoke in area of usage. Use only as intended. Wash hands after use. Remove contaminated clothing/PPE before entering eating areas.

**Conditions for safe storage:** Store in a cool dry place. Ensure containers are adequately labeled. Protect containers from physical damage when not in use.

## **SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION**

**Exposure control measures:**

**Exposure Standards:**

<b>Ingredient</b>	<b>Reference</b>	<b>TWA (mgm3)</b>	<b>STEL (mgm3)</b>
Phosphoric Acid (85%)	HCIS	1	3

**Exposure Controls:** Use only in a well ventilated are. Avoid inhallation. Use of mechanical extraction/ventillation is recommended. NEVER USE IN CONFINED SPACES OR AREAS OF POOR VENTILLATION.

**Personal Protective Equipment (PPE):**

Eye / Face:	Wear suitable splash proof glasses/goggles AND face shield.
Hands:	Wear full length acid resistant gloves (nitrile).
Body:	Wear a suitable fluid resistant apron of acid resistant construction (PVC) over suitable cotton work wear. Acid resistant footwear should be worn (rubber boots).
Respiratory System:	Use only in well ventilated areas – NEVER USE IN CONFINED SPACES. Avoid breathing vapours. Use of mechanical fume extraction and ventillation is advised.

## **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES:**

Appearance:	clear liquid
Odour:	slightly sweet odour
Odour threshold:	not available
pH:	2.6 – 3.4
Melting/freezing point:	not available
Initial boiling point:	105 degrees Celsius
Flash Point:	not relevant
Evaporation rate:	not available
Flammability:	Not flammable
Vapor pressure:	not available
Vapor density:	not available
Relative density:	specific gravity = 1.25
Solubility:	water soluble
Partition coefficient:	not available

Auto Ignition Temperature: not relevant  
Decomposition temperature: not available  
Viscosity: not available

## **SECTION 10: STABILITY AND REACTIVITY**

**Reactivity:** May be corrosive to metals at elevated temperatures.  
**Chemical stability:** Stable under recommended storage conditions.  
**Possibility of hazardous reactions:** Polymerization is unlikely to occur.  
**Conditions to avoid:** Do not allow product to come into contact with strong alkalis or oxidising agents, or with metals at elevated temperatures (except for intended product use).  
**Incompatible materials:** Strong alkalis and oxidising agents.  
**Hazardous decomposition products:** May produce phosphorous oxides if heated to decomposition temperature.

## **SECTION 11: TOXICOLOGICAL INFORMATION**

<b>Ingredient:</b>	<b>Oral toxicity(LD50)</b>	<b>Dermal toxicity(LD50)</b>	<b>Inhalation toxicity(LC50)</b>
Phosphoric Acid	2000mg/kg (rat)	2000mg/kg (rabbit)	5337mg/kg (rabbit)

[Source: IMAP: Human Health Tier II Assessment for Phosphoric Acid – NICNAS 2016]

**Acute toxicity:** Based on available data, the classification criteria are not met.  
**Skin:** May be irritant to skin. Long term exposure may result in skin damage.  
**Eyes:** Contact with eyes may result in corneal damage, irritation and/or pain.  
May result in permanent eye damage.  
**Skin sensitization:** Not classified as causing skin sensitization.  
**Respiratory Sensitization:** Not classified as causing respiratory sensitization.  
**Germ cell mutagenicity:** Not classified as a mutagen.  
**Carcinogenicity:** Not classified as a carcinogen.  
**Reproductive Toxicity:** Not classified as a reproductive toxin.  
**STOT (single exposure):** High level exposure may result in breathing difficulties.  
Over exposure may cause irritation of nose and throat, and coughing.  
Effects may be delayed.  
**STOT (repeated exposure):** Not classified as causing organ damage from repeated exposure.  
**Aspiration:** Not classified as causing aspiration.

## **SECTION 12: ECOLOGICAL INFORMATION**

**Ecotoxicity:** Hazardous to aquatic life at high concentrations.  
**Persistence and degradability:** Acidity may be reduced by natural water minerals. Phosphates may persist indefinitely.  
**Bioaccumulative potential:** Bioaccumulation in the food chain is not expected.  
**Soil mobility:** No information available.  
**Other adverse effects:** No information available.

## **SECTION 13: DISPOSAL CONSIDERATIONS**

**Waste disposal method:** Neutralise to pH 6 – 8 by slowly adding waste product to a saturated sodium bicarbonate / water solution. Dilute with water and flush into municipal sewerage. Disposal should be undertaken in accordance with relevant local regulations.

## SECTION 14: TRANSPORT INFORMATION

THIS PRODUCT IS NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE, IMDG OR IATA DGC.

	<b>Land Transport (ADG Code)</b>	<b>Sea Transport (IMDG)</b>	<b>Air Transport (IATA DGR)</b>
<b>UN Number:</b>	none allocated	none allocated	none allocated
<b>Proper shipping name:</b>	none allocated	none allocated	none allocated
<b>Transport hazard class:</b>	none allocated	none allocated	none allocated
<b>Packing group:</b>	none allocated	none allocated	none allocated
<b>Environmental Hazards:</b>	This solution is not a known marine pollutant.		
<b>Special Precautions:</b>	No information available.		
<b>Additional Information:</b>	No Information available.		
<b>HAZCHEM Emergency Action Code:</b>	No information available.		

## SECTION 15: REGULATORY INFORMATION

### Safety, health and environmental regulations:

Phosphoric acid is listed in the Poisons Standard – the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP) in Schedule 5. Schedule 5 (S5) chemicals are described as "substances with a low potential for causing harm, the extent of which can be reduced through the use of appropriate packaging with simple warnings and safety directions on the label." S5 chemicals are labelled with "CAUTION". (SUSMP, 2015).

Phosphoric acid is listed in the National Pollutant Inventory with reporting Threshold Category 1 (10 tonnes per year).

The Hazardous Chemical Information System (HCIS) is a database of information on chemicals that have been classified in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). No data is available from the HCIS database for phosphoric acid aqueous solutions below 85% concentrations. The superseded Hazardous Substance Information System (HSIS) however, lists Phosphoric acid solutions with concentrations of  $\geq 10\% \text{ Conc} < 25\%$  as a hazardous substance, with the following hazard codes, risk(s) and safety phrase(s):

Hazard Code:	Xi	Irritant.
Risk Phrases:	R36/R38	Irritant to Eyes; Irritating to skin.
Safety Phrases:	S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

None of the contents of this product are know carcinogens.

## **SECTION 16: OTHER INFORMATION**

This Safety Data Sheet (SDS) was written and prepared by S. J. Fergusson for Retropol Electropolishing Systems, 3 Springwood Road Underwood, Queensland 4119, on the 15<sup>th</sup> August 2016.

### **Key to abbreviations:**

ADG	Australian Dangerous Goods Code [Full title: ' <i>Australian Code for the Transport of Dangerous Goods by Road &amp; Rail, Ed 7.4, June 2016</i> ].
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
HCIS	Hazardous Chemical Information System
HSIS	Hazardous Substances Information System
IATA	International Air Transport Association
IMAP	Inventory Multi-tiered Assessment and Prioritisation
IMDG	International Maritime Dangerous Goods Code
NICNAS	National Industrial Chemical Notification and Assessment Scheme
PPE	Personal protective equipment
SDS	Safety Data Sheet
STOT	Specific target organ toxicity

### **END OF SDS**