SAFETY DATA SHEET

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ACCORDING TO: Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals (Safe Work Australia, 2020) & GHS 7

SECTION 1: IDENTIFICATION

Product identifier used on the label	M-Prep Conditioner A
Other means of identification	None
Recommended use of the chemical and restrictions on use	
Recommended use	Metal surface treatment products, including galvanic and electroplating products
Restrictions on use	Anything other than the above.
Supplier/Manufacturer name, address and telephone number	
Supplier/Manufacturer	VISHAY MEASUREMENTS GROUP, INC.
Address	Post Office Box 27777 Raleigh, NC 27611 USA
Telephone	+1 919-365-3800
Fax	+1 919-365-3945
E-Mail (competent person)	mm.us@vpgsensors.com
Importer/Distributor name, address and telephone number	To be added by Australian importer/distributor
Name	
Address	
Telephone	
Emergency telephone number	61-290372994 (for spills and releases) CHEMTREC (24 hours)

SECTION 2: HAZARD(S) IDENTIFICATION

Classification of the substance or mixture

In accordance with the Safe Work Australia model Work Health and Safety Regulations (2020) & GHS 7 Corrosive to Metals - Category 1

Label elements

Hazard Symbol

Corrosion

Signal Word(s)	Warning
Hazard Statement(s)	H290: May be corrosive to metals.
Precautionary Statement(s)	P234: Keep only in original container. P390: Absorb spillage to prevent material damage.
Other Hazards	None assigned
Other Hazards that do not Result in Classification	None Known

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances Not applicable

Mixtures Substances in preparations / mixtures

Chemical identity of the substance	%W/W	CAS No.	EC No.	Hazard classification
Phosphoric Acid Synonym(s): Orthophosphoric acid	<10	7664-38-2	231-633-2	Corrosive to Metals - Category 1 Acute toxicity (Oral) - Category 4 Skin corrosion/irritation - Category 1B Eye Damage/Irritation, Category 1 **Specific Concentration Limits (SCLs):** Skin corrosion/irritation - Category 1B: C ≥ 25% Skin corrosion/irritation - Category 2: 10% ≤ C < 25% Eye Damage/Irritation, Category 1: C ≥ 25% Eye Damage/Irritation - Category 2: 10% ≤ C < 25%

SECTION 4: FIRST AID MEASURES

Description of first aid measures

First aid facilities	Eyewash facilities should be stationed close to workplace where possible.
Self-protection of the first aider	Use personal protective equipment as required. Wear appropriate personal protective equipment, avoid direct contact. Ensure adequate ventilation. Avoid breathing mist/vapours/spray. Avoid contact with skin and eyes. Contaminated clothing should be laundered before reuse.
Inhalation	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
Skin Contact	IF ON SKIN (or hair): Wash skin with soap and water. If skin irritation occurs: Get medical advice/attention.
Eye Contact	IF IN EYES: Flush eyes with water for at least 15 minutes while holding eyelids open. If eye irritation persists, get medical advice/attention.
Ingestion	IF SWALLOWED: Wash out mouth with water and give 200-300 ml (half a pint) of water to drink. Do not induce vomiting. If symptoms develop, obtain medical attention. Call a POISON CENTER/doctor if you feel unwell.
Most important symptoms and effects, both acute and delayed	May cause irritation to eyes, skin and air passages.
Indication of immediate medical attention and special treatment needed, if necessary	Unlikely to be required but if necessary treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media	Extinguish with carbon dioxide, dry chemical, foam or waterspray.
Unsuitable extinguishing Media	Do not use water jet. Direct water jet may spread the fire.
Special hazards arising from the chemical	Not flammable. Reacts with metals liberating hydrogen. Reaction products may include hydrogen cyanide. May decompose in a fire giving off toxic fumes.: Carbon monoxide, Carbon dioxide, Hydrogen Gas. May react with some metals including aluminum, magnesium, and zinc, resulting in evolution of phosphorus oxides.

Special protective equipment and precautions for fire fighters	Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Avoid run off to waterways and sewers.
Hazchem Code	2X

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Ensure adequate ventilation. Stop leak if safe to do so. Use personal protective equipment as required. See Section: 8. Avoid breathing mist/vapours/spray. Avoid contact with skin and eyes. Stay upwind/keep distance from source.
Environmental precautions	Avoid release to the environment. Do not release undiluted and unneutralised to the sewer. Spillages or uncontrolled discharges into watercourses must be alerted to the Environment Agency or other appropriate regulatory body.
Methods and material for containment and cleaning up	Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a container for disposal. Cautiously neutralize remainder. Then wash away with plenty of water. Neutralise with Calcium carbonate./ sodium carbonate / sodium bicarbonate Ventilate the area and wash spill site after material pick-up is complete. Dispose of this material and its container as hazardous waste.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling	Ensure operatives are trained to minimise exposures. Ensure adequate ventilation. Avoid breathing mist/vapours/spray. In case of inadequate ventilation wear respiratory protection. Wear protective gloves/protective clothing/eye protection/face protection. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product.
Conditions for safe storage, including any incompatibilities	Keep only in original container. Keep container tightly closed and in a well-ventilated place. Keep away from direct sunlight.
Storage temperature	Ambient temperatures. <27℃
Storage life	Stable under normal conditions.
	Suitable containers: Stainless steel, High density polyethylene, Glass
Incompatible materials	Alkaline materials and materials containing chlorine.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Occupational Exposure Limits

Chemical name	Synonym(s)	CAS No.	TWA (ppm)	TWA (mg/m^3)	STEL (ppm)	STEL (mg/m^3)	Advisory carcinogen category	Other advisory information	Notes
Phosphoric acid	Orthophosphoric acid	7664-38-2	-	1	-	3	-	-	-

Source: Safe Work Australia Workplace Exposure Standards for Airbourne Contaminants (2019)

Biological exposure indicies	Not established
Appropriate engineering controls	Ensure adequate ventilation. Atmospheric levels should be controlled in compliance with the occupational exposure limit.
Individual protection measures, such as personal protective equipment (PPE)	General hygiene measures for the handling of chemicals are applicable. Keep good industrial hygiene. Avoid contact with skin and eyes. Avoid breathing vapours. Wash hands before breaks and after work. Keep work clothes separately. Do not eat, drink or smoke at the work place. IF exposed: Flush with fresh water if contact with skin or eyes.
Eye/face protection	Wear protective eye glasses for protection against liquid splashes. Wear eye protection with side protection.

Skin protection

Hand protection:
Wear impervious gloves. Protective index 6, corresponding > 480 minutes of permeation time. Gloves should be changed regularly to avoid permeation problems. Breakthrough time of the glove material: refer to the information provided by the gloves' producer. Neoprene or rubber gloves are recommended.

Body protection:
Wear impervious protective clothing, including boots, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. A suitable mask with filter type A may be appropriate.

Thermal hazards — Not applicable.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid
Colour	Clear, colourless
Odour	Odourless.
Melting point and freezing point	Not established.
Boiling point or initial boiling point and boiling range	~100℃
Flammability	Non-flammable.
Lower and upper explosion limit or lower and upper flammability limit	Not established.
Flash point	Not established.
Auto-ignition temperature	Not established.
Decomposition temperature	Not established.
pH	Not established.
Kinematic viscosity	Not established.
Solubility	Soluble in water.
Partition coefficient n-octanol/water (log value)	Not established.
Vapour pressure	Not established.
Density and Relative density	~1-1.1 (H_2O = 1) (Mixture)
Relative vapour density	Not established.
Particle characteristics	Not applicable (Liquid)

Additional parameters

Evaporation rate	Not established.
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Stable under normal conditions.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	May react with some metals including aluminum, magnesium, and zinc, resulting in evolution of phosphorus oxides.
Conditions to avoid	Keep away from direct sunlight.

Incompatible materials	Alkaline materials and materials containing chlorine.
Hazardous decomposition product(s)	Combustion or thermal decomposition will evolve toxic and irritant vapours.: Oxides of phosphorus.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects	All test data taken from existing ECHA registrations for the substances mentioned.
(Substances in preparations / mixtures)	
Acute toxicity	
Ingestion	Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: Estimated LD50 > 2000 mg/kg bw/day.
Inhalation	Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: estimated LC50 > 20 mg/L.
Dermal	Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: estimated LD50 > 2000 mg/kg bw/day.
Skin corrosion/irritation	Based upon the available data, the classification criteria are not met.
Phosphoric Acid:	Skin Corrosion/Irritation, Category 1. NICNAS classification. EU SCLs: Category 1B: C ≥ 25%, Category 2: 10% ≤ C < 25% Corrosive (1500.41 - U.S. Federal Register Vol. 38, No. 187, S. 26019 from 1973-09-27).
Serious eye damage/irritation	Based upon the available data, the classification criteria are not met.
Respiratory or skin sensitization	Based upon the available data, the classification criteria are not met.
Germ cell mutagenicity	Based upon the available data, the classification criteria are not met.
Carcinogenicity	Based upon the available data, the classification criteria are not met.
Reproductive toxicity	Based upon the available data, the classification criteria are not met.
STOT - single exposure	Based upon the available data, the classification criteria are not met.
STOT - repeated exposure	Based upon the available data, the classification criteria are not met.
Aspiration hazard	Based upon the available data, the classification criteria are not met.

Information on likely routes of exposure	
Inhalation	Possible route of exposure.
Ingestion	Unlikely route of exposure.
Skin Contact	Possible route of exposure.
Eye Contact	Unlikely route of exposure.

Early onset symptoms related to exposure	None Known
Delayed health effects from exposure	None Known
Exposure levels and health effects	See section 8
Interactive effects	None Known
Other information	None Known
NTP Report on Carcinogens	No components listed.
IARC Monographs	No components listed.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity	Based upon the available data, the classification criteria are not met. Estimated Mixture LC50 >100 mg/l (Fish)
Persistence and degradability	Readily biodegradable.
Bioaccumulative potential	The product has low potential for bioaccumulation.
Mobility in soil	The product has high mobility in soil. Phosphoric Acid: Very soluble

Other adverse effects	None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Safe handling and disposal methods	Dispose of contents in accordance with local, state or national legislation. Dispose of this material and its container as hazardous waste. Dispose of wastes in an approved waste disposal facility. Send after pre-treatment to a appropriate hazardous waste incinerator facility according to legislation.
Disposal of contaminated packaging	Containers of this material may be hazardous when empty since they retain product residue. Handle contaminated packages in the same way as the substance itself.
Environmental regulations	Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

	ADG	**IMDG**	**IATA/ICAO**
UN number	UN 1760	UN 1760	UN 1760
Proper Shipping Name	CORROSIVE LIQUID, N.O.S (Phosphoric Acid)	CORROSIVE LIQUID, N.O.S (Phosphoric Acid)	CORROSIVE LIQUID, N.O.S (Phosphoric Acid)
Transport hazard class(es)	8	8	8
Packing group	III	III	III
Environmental hazards	Not classified	Not classified as a Marine Pollutant.	Not classified
Special precautions for user	See Section: 2		
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.		
Hazchem code	2X		

SECTION 15: REGULATORY INFORMATION

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

International Regulations (for example)	
Montreal Protocol/Stockholm Convention/ Rotterdam Convention/ Basel Convention / MARPOL	All chemicals are not listed
National Regulations	
Australian Inventory of Chemical Substances (AICS)	All components are listed on AICS
NICNAS - Priority Existing Chemicals	All chemicals are not listed
NICNAS - IMAP Framework	Phosphoric Acid: (Tier I: Environment Assessment; Tier II: Human Health Assessment)
NICNAS - High Volume Industrial Chemical List	Phosphoric Acid: Threshold Range: Between 10,000 and 99,999 tonnes
National Pollutant Inventory	Phosphoric Acid: Threshold Category = 1, Threshold = 10 tpa
The Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)	Phosphoric Acid: Schedule 6; Schedule 5; Appendix E Part 2; Appendix F Part 3

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: not applicable – V1.0

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References:

Safety Data Sheets for ingoing ingredients. National Industrial Chemical Notification and Assessment Scheme (NICNAS).
EU Data: Harmonised Classification and Existing ECHA registration(s) for Phosphoric Acid (CAS No. 7664-38-2).

NICNAS IMAP Human health tier II assessments:
Phosphoric Acid: https://www.nicnas.gov.au/chemical-information/imap-assessments/imap-assessment-details?assessment_id=1738

The mixture is classified in accordance with Safe Work Australia model Work Health and Safety Regulations (2020) & GHS 7

LEGEND

ADG	Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)
IATA	International Air Transport Association
IARC	International Agency for Research on Cancer
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
LTEL	Long term exposure limit
NICNAS	National Industrial Chemicals Notification and Assessment Scheme
NTP	National Toxicology Program
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SCL	Specific Concentration Limit
STEL	Short term exposure limit
TWA	Time Weighted Average

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

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