

SAFETY DATA SHEET



Version: 01
Date of Issue: 23/02/2021
Date of First Issue: 23/02/2021

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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 Neutraliser 5A
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 Address	VISHAY MEASUREMENTS GROUP, INC. 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) CHEMTRAC (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

Label elements

Hazard Symbol

None assigned

Signal Word(s)

None assigned

Hazard Statement(s)

None assigned

Precautionary Statement(s)

None assigned

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

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Disodium Tetraborate Pentahydrate* Synonym(s): Borates, tetra, sodium salts (pentahydrate); Borax; Tincalconite	<0.01	12179-04-3	215-540-4	Eye Damage/Irritation, Category 2 Reproductive toxicity - Category 1 EU Specific Concentration Limits (SCLs): Reproductive toxicity - Category 1: C ≥4.5%
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* See Section: 8 and 15

SECTION 4: FIRST AID MEASURES



Description of first aid measures

First aid facilities

Self-protection of the first aider

Inhalation

Skin Contact

Eye Contact

Ingestion

Most important symptoms and effects, both acute and delayed

Indication of immediate medical attention and special treatment needed, if necessary

Eyewash facilities should be stationed close to workplace where possible.

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.

IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

IF ON SKIN (or hair): Wash skin with soap and water. If skin irritation occurs: Get medical advice/attention.

IF IN EYES: Flush eyes with water for at least 15 minutes while holding eyelids open. If eye irritation persists, get medical advice/attention.

IF SWALLOWED: Wash out mouth with water and give 200-300 ml (half a pint) of water to drink. Do NOT induce vomiting. Call a POISON CENTER/doctor if you feel unwell.

None anticipated

Unlikely to be required but if necessary treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

Unsuitable extinguishing Media

Special hazards arising from the chemical

Special protective equipment and precautions for fire fighters

Hazchem Code

Extinguish with carbon dioxide, dry chemical, foam or waterspray.

Do not use water jet. Direct water jet may spread the fire.

Not flammable. May decompose in a fire giving off toxic fumes. When heated, material will emit anhydrous ammonia vapor which necessitates respiratory and eye protection for firefighting.

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.

None assigned.

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.

Avoid release to the environment. Do not allow to enter drains, sewers or

watercourses.

Environmental precautions

Absorb spillage to prevent material damage. Cover spills with inert absorbent material. Neutralize with dilute acid. Transfer to a container for disposal.

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Ventilate the area and wash spill site after material pick-up is complete. Dispose of waste or used sacks/containers according to local regulations.

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/hearing 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 packaging. Keep container tightly closed and in a well-ventilated place.

Storage temperature

Ambient temperatures. <27°C

Storage life

Stable under normal conditions

Incompatible materials

Acids, Peroxides, metallic copper, tin, zinc and their alloys, halogenated compounds.

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
Borates, tetra, sodium salts (pentahydrate)	Disodium tetraborate pentahydrate	12179-04-3	-	1	-	-	-	-	-

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

Biological exposure indices

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)

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier. General hygiene measures for the handling of chemicals are applicable. Keep good industrial hygiene. Avoid contact with skin and eyes. Avoid breathing mist/vapours/spray. 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.

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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	Mild ammonia odour.
Melting point and freezing point	0°C
Boiling point or initial boiling point and boiling range	100°C
Flammability	Non-flammable./ not applicable - Liquid
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	760 mm Hg @ 100 °C
Density and Relative density	1 (Water = 1)
Relative vapour density	1 (Air = 1)
Particle characteristics	Not applicable (Liquid)

Additional parameters

Volatile Organic Compound Content:	0%
Evaporation rate	<1 (BuAc = 1)
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	Hazardous polymerisation will not occur.
Conditions to avoid	Adding Sodium Hydroxide to this material and/or heating will volatize Ammonia.
Incompatible materials	Acids, Peroxides, metallic copper, tin, zinc and their alloys, halogenated compounds. sodium hydroxide.
Hazardous decomposition product(s)	Combustion products: Ammonia

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects (Substances in preparations / mixtures)	All test data taken from existing ECHA registrations for the substances mentioned.
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.

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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.
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.
Sodium Tetraborate Pentahydrate:	Rats exposed to the high dose of 336 mg/kg bw boric acid (corresponding to a level of 58.5 mg B/kg bw) were sterile (Weir RJ & Fisher RS, 1972)
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	
NTP Report on Carcinogens	None Known
IARC Monographs	No components listed.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity	Based upon the available data, the classification criteria are not met.
Persistence and degradability	estimated Mixture LC50 >100 mg/L (Fish)
Bioaccumulative potential	Readily biodegradable.
Mobility in soil	The product has no potential for bioaccumulation.
Other adverse effects	The product is predicted to have high mobility in soil. Soluble in water. 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. Neutralize absorbent material with dilute acid. 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

Not classified according to the United Nations 'Recommendations on the Transport of Dangerous Goods'.

ADG

IMDG

IATA/ICAO

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UN number	Not classified	Not classified	Not classified
Proper Shipping Name	Not classified	Not classified	Not classified
Transport hazard class(es)	Not classified	Not classified	Not classified
Packing group	Not classified	Not classified	Not classified
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	None assigned.		

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. (Disodium Tetraborate Pentahydrate: listed under CAS 12045-88-4 / 1303-96-4 / 1330-43-4)

NICNAS - Priority Existing Chemicals

All chemicals are not listed

NICNAS - IMAP Framework

Disodium Tetraborate Pentahydrate: (Tier I: Environment Assessment; Tier II: Human Health Assessment)

NICNAS - High Volume Industrial Chemical List

Disodium Tetraborate Pentahydrate: Threshold Range: Between 1,000 and 9,999 tonnes)

National Pollutant Inventory

All chemicals are not listed

The Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

Disodium Tetraborate Pentahydrate (Under 'BORIC ACID'): Schedule 5; Schedule 4; Appendix E, Part 2; Appendix F, Part 3

SECTION 16: OTHER INFORMATION

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

Version: 1.0

Revision Date: 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 Disodium Tetraborate Pentahydrate (CAS No. 12179-04-3).

Literature References:

1. Weir RJ & Fisher RS, 1972, Toxicologic studies on borax and boric acid., Toxicology and Applied Pharmacology 23: 351 - 364.

NICNAS IMAP Human health tier II assessments:

Disodium Tetraborate Pentahydrate (under 'Tincalanite – CAS 12045-88-4') : https://www.nicnas.gov.au/chemical-information/imap-assessments/imap-group-assessment-report?assessment_id=1750

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

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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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