

SAFETY DATA SHEET

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

www.vishaypg.com

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 | 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 | Not classified as hazardous for supply/use. |
| 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% |
|--|-------|------------|-----------|---|

* See Section: 8 and 15

SECTION 4: FIRST AID MEASURES



Description of first aid measures

First aid facilities
Self-protection of the first aider

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.

Inhalation

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.

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. Call a POISON CENTER/doctor if you feel unwell.

Most important symptoms and effects, both acute and delayed

None anticipated

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
Unsuitable extinguishing Media

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

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

Special hazards arising from the chemical

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.

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

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.

Environmental precautions

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

Methods and material for containment and cleaning up

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

Storage temperature
Storage life
Incompatible materials

Keep only in original packaging. Keep container tightly closed and in a well-ventilated place.

Ambient temperatures. <27°C
Stable under normal conditions

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 Airborne 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 volatilize 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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| | |
|---|---|
| Skin corrosion/irritation | Acute Toxicity Estimate Mixture Calculation: estimated LD50 > 2000 mg/kg bw/day. |
| 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 | None Known |
| NTP Report on Carcinogens | No components listed. |
| IARC Monographs | |

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

Date of First Issue: 23/02/2021

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 'Tincalonite – 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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