

# SAFETY DATA SHEET

Revision: 2.0 Date: 23 January 2017

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH),  
1272/2008 (CLP) & 2015/830

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## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1 Product identifier**  
Product Name M-Prep Neutraliser 5A
- 1.2 Relevant identified uses of the substance or mixture and uses advised against**  
Identified Use(s) PC14 Metal surface treatment products, including galvanic and electroplating products  
Uses Advised Against Anything other than the above.
- 1.3 Details of the supplier of the safety data sheet**  
Company Identification VISHAY MEASUREMENTS GROUP UK LTD  
Stroudley Road  
Basingstoke  
Hampshire  
RG24 8FW  
United Kingdom  
Telephone +44 (0) 1256 462131  
Fax +44 (0) 1256 471441  
E-Mail (competent person) mm.uk@vishaypg.com
- 1.4 Emergency telephone number**  
Emergency Phone No. (00-1) 703-527-3887 CHEMTREC (24 hours)  
Languages spoken All official European languages.

## SECTION 2: HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture**
- 2.1.1 Regulation (EC) No. 1272/2008 (CLP)** Not classified according to current CLP Regulations.
- 2.2 Label elements**  
Product Name M-Prep Neutralizer 5A  
Contains: Not applicable  
Hazard Pictogram(s) None assigned.  
Signal Word(s) None assigned.  
Hazard Statement(s) None assigned.  
Precautionary Statement(s) None assigned.
- 2.3 Other hazards** None known.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- 3.1 Substances** Not applicable  
**3.2 Mixtures**

EC Classification Regulation (EC) No. 1272/2008 (CLP)

Chemical identity of the substance	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard Statement(s)
Sodium tetraborate pentahydrate	< 0.01	12179-04-3	215-540-4	Not yet assigned in the supply chain	Eye Irrit. 2; H319 Repr. 1B; H360FD (SCL ≥4.5%)

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For full text of H/P Statements see section 16.

## SECTION 4: FIRST AID MEASURES



<b>4.1</b>	<b>Description of first aid measures</b> 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 vapours. Avoid contact with skin and eyes. Contaminated clothing should be laundered before reuse.
	Inhalation	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
	Skin Contact	Wash skin with soap and water. If skin irritation occurs: Get medical advice/attention.
	Eye Contact	Flush eyes with water for at least 15 minutes while holding eyelids open. If eye irritation persists, get medical advice/attention.
	Ingestion	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.
<b>4.2</b>	<b>Most important symptoms and effects, both acute and delayed</b>	None anticipated.
<b>4.3</b>	<b>Indication of any immediate medical attention and special treatment needed</b>	Unlikely to be required but if necessary treat symptomatically.

## SECTION 5: FIRE-FIGHTING MEASURES

<b>5.1</b>	<b>Extinguishing media</b> Suitable Extinguishing Media Unsuitable extinguishing Media	Extinguish with carbon dioxide, dry chemical, foam or waterspray. Do not use water jet.
<b>5.2</b>	<b>Special hazards arising from the substance or mixture</b>	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.
<b>5.3</b>	<b>Advice for fire-fighters</b>	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.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

<b>6.1</b>	<b>Personal precautions, protective equipment and emergency procedures</b>	Ensure adequate ventilation. Stop leak if safe to do so. Use personal protective equipment as required. See Section: 8. Avoid breathing vapours. Avoid contact with skin and eyes.
<b>6.2</b>	<b>Environmental precautions</b>	Avoid release to the environment. Do not allow to enter drains, sewers or watercourses.
<b>6.3</b>	<b>Methods and material for containment and cleaning up</b>	Absorb spillage to prevent material damage. Cover spills with inert absorbent material. Neutralize with dilute acid. Ventilate the area and wash spill site after material pick-up is complete.
<b>6.4</b>	<b>Reference to other sections</b>	See Section: 8, 13

## SECTION 7: HANDLING AND STORAGE

<b>7.1</b>	<b>Precautions for safe handling</b>	Ensure operatives are trained to minimise exposures. Ensure adequate ventilation. Avoid breathing vapours. 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.
<b>7.2</b>	<b>Conditions for safe storage, including any</b>	Keep only in original container. Keep container tightly closed and in a well-

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**incompatibilities**  
Storage temperature  
Storage life  
Incompatible materials

ventilated place.  
<27°C  
Stable under normal conditions.  
Acids, Peroxides, metallic copper, Tin, Zinc and their alloys, halogenated compounds.  
See Section: 1.2.

**7.3 Specific end use(s)**

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**8.1 Control parameters****8.1.1 Occupational Exposure Limits**

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m <sup>3</sup> )	STEL (ppm)	STEL (mg/m <sup>3</sup> )	Note
Sodium Tetraborate Pentahydrate	12179-04-3	-	1	-	-	WEL

Source: WEL: Workplace Exposure Limit (UK HSE EH40)

**8.1.2 Biological limit value**

Not established.

**8.1.3 PNECs and DNELs**

Not established.

**8.2 Exposure controls****8.2.1 Appropriate engineering controls**

Ensure operatives are trained to minimise exposures. Ensure adequate ventilation. Atmospheric levels should be controlled in compliance with the occupational exposure limit.

**8.2.2 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 (EN166).

Skin protection

**Hand protection:**

Wear impervious gloves (EN374). Protective index 6, corresponding > 480 minutes of permeation time according to EN 374 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 suitable coveralls to prevent exposure to the skin.

Respiratory protection



In case of inadequate ventilation wear respiratory protection. Open system(s): Wear suitable respiratory protective equipment. A suitable mask with filter type A (EN141 or EN405) may be appropriate.

Thermal hazards

Not applicable

**8.2.3 Environmental Exposure Controls**

Avoid release to the environment.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance	Colourless liquid.
Odour	Mild ammonia odor.
Odour threshold	Not available.
pH	Not established.
Melting point/freezing point	0°C
Initial boiling point and boiling range	100°C
Flash point	Not applicable.
Evaporation rate	<1 (BuAc = 1)
Flammability (solid, gas)	Not applicable - Liquid
Upper/lower flammability or explosive limits	Not applicable.
Vapour pressure	760 mmHg @ 100°C
Vapour density	1 (Air = 1)
Relative density	1 (Water = 1)
Solubility(ies)	Soluble in water.
Partition coefficient: n-octanol/water	Not established.
Auto-ignition temperature	Not established.
Decomposition Temperature	Not established.
Viscosity	Not established.
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

### 9.2 Other information

VOC: 0%

## SECTION 10: STABILITY AND REACTIVITY

10.1	<b>Reactivity</b>	Stable under normal conditions.
10.2	<b>Chemical stability</b>	Stable under normal conditions.
10.3	<b>Possibility of hazardous reactions</b>	Hazardous polymerisation will not occur.
10.4	<b>Conditions to avoid</b>	Adding Sodium Hydroxide to this material and/or heating will volatilize Ammonia.
10.5	<b>Incompatible materials</b>	Acids, Peroxides, metallic copper, Tin, Zinc and their alloys, halogenated compounds.
10.6	<b>Hazardous decomposition product(s)</b>	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.

## SECTION 11: TOXICOLOGICAL INFORMATION

11.1	<b>Information on toxicological effects</b>	All test data taken from existing ECHA registrations for the substances mentioned.
	<b>Acute toxicity - Ingestion</b>	Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 2000 mg/kg bw/day.
	<b>Acute toxicity - Inhalation</b>	Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: Estimated LC50 >20.0 mg/l.
	<b>Acute toxicity - Skin Contact</b>	Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 2000 mg/kg bw/day.
	<b>Skin corrosion/irritation</b>	Based upon the available data, the classification criteria are not met.
	<b>Serious eye damage/irritation</b>	Based upon the available data, the classification criteria are not met.
	Sodium Tetraborate Pentahydrate:	Test Result: Irritating to eyes. (EPA OPP 81-4)
	<b>Respiratory or skin sensitization</b>	Based upon the available data, the classification criteria are not met.
	<b>Germ cell mutagenicity</b>	Based upon the available data, the classification criteria are not met.
	<b>Carcinogenicity</b>	Based upon the available data, the classification criteria are not met.
	<b>Reproductive toxicity</b>	Based upon the available data, the classification criteria are not met.
	Sodium Tetraborate Pentahydrate:	Rats exposed to the high dose of 518 mg/kg bw of borax (corresponding to a level of 58.5 mg B/kg bw) were sterile. (Weir RJ & Fisher RS, 1972)

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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.
11.2 Other information	None known.

## SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity	Based upon the available data, the classification criteria are not met. Estimated Mixture LC50 >100 mg/l (Fish)
12.2 Persistence and degradability	Readily biodegradable.
12.3 Bioaccumulative potential	The product has no potential for bioaccumulation.
12.4 Mobility in soil	The product is predicted to have high mobility in soil. Soluble in water.
12.5 Results of PBT and VPvB assessment	Not classified as PBT or vPvB.
12.6 Other adverse effects	None known.

## SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods	Neutralize absorbent material with dilute acid.
13.2 Additional Information	Dispose of contents in accordance with local, state or national legislation.

## SECTION 14: TRANSPORT INFORMATION

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

	ADR/RID	IMDG	IATA/ICAO
14.1 UN number	Not classified	Not classified	Not classified
14.2 UN proper shipping name	Not classified	Not classified	Not classified
14.3 Transport hazard class(es)	Not classified	Not classified	Not classified
14.4 Packing group	Not classified	Not classified	Not classified
14.5 Environmental hazards	Not classified	Not classified as a Marine Pollutant.	Not classified
14.6 Special precautions for user	See Section: 2		
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable		

## SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture	
15.1.1 EU regulations	Sodium tetraborate pentahydrate: Entry 30: Restriction on supply of substances and mixtures to the general public, if classified as Repr. 1A or 1B. Proposed for authorisation - recommended for Annex XIV inclusion.
Authorisations and/or Restrictions On Use	
Substance(s) of Very High Concern (SVHCs)	Sodium tetraborate pentahydrate is included on the Candidate List of Substances of Very High Concern for authorisation or restriction.
15.1.2 National regulations	None known
15.2 Chemical Safety Assessment	A chemical safety assessment is not required under REACH.

## SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: New SDS Regulation 2015/830 format, all sections have been updated to include new information. Please review SDS with care.

### References:

Existing Safety Data Sheet (SDS), Harmonised Classification and Existing ECHA registration(s) for Sodium 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.

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EU Classification: This Safety Data Sheet was prepared in accordance with EC Regulation (EC) 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830.

Classification of the substance or mixture According to Regulation (EC) No. 1272/2008 (CLP)	Classification Procedure
Not classified	Threshold Calculation

## LEGEND

LTEL: Long Term Exposure Limit

DNEL: Derived No Effect Level

PBT: PBT: Persistent, Bioaccumulative and Toxic

SCL: Specific Concentration Limit

STEL: Short Term Exposure Limit

PNEC: Predicted No Effect Concentration

vPvB: very Persistent and very Bioaccumulative

## Hazard classification / Classification code:

Eye Irrit. 2; Eye Irritation, Category 2

Repr. 1B; Reproductive toxicity, Category 1B

## Hazard Statement(s)

H319: Causes serious eye irritation.

H360FD: May damage fertility. May damage the unborn child.

## Disclaimers

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