SAFETY DATA SHEET

M-Prep Neutralizer 5A

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ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2020/878

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

1.1 Product identifier

Product Name	M-Prep Neutralizer 5A
Unique Formula Identifier (UFI)	Not applicable
Nanoform	Not applicable

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified Use(s)	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 GMBH Tatschenweg 1 74078 Heilbronn Germany
Telephone	+49 (0) 7131 39099-0
Fax	+49 (0) 7131 39099-229
E-Mail (competent person)	mm.de@vpgsensors.com

1.4 Emergency telephone number

(00-1) 703-527-3887
CHEMTREC

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1 Regulation (EC) No. 1272/2008 (CLP) Not classified as hazardous for supply.

2.2 Label elements According to Regulation (EC) No. 1272/2008 (CLP)

Product Name	M-Prep Neutralizer 5A
Hazard Pictogram(s)	None assigned
Signal Word(s)	None assigned
Contains:	None assigned
Hazard Statement(s)	None assigned
Precautionary Statement(s)	None assigned
Additional Information	Not applicable

2.3 Other hazards None known. The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances - Not applicable.

3.2 Mixtures

No component of this mixture is included above the relevant concentration levels detailed within section 3.2.1 of SDS regulation 2020/878.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

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: 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.

4.2 Most important symptoms and effects, both acute and delayed — None anticipated

4.3 Indication of any immediate medical attention and special treatment needed — Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 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.

5.2 Special hazards arising from the substance or mixture — 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.

5.3 Advice 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.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures — Extinguish with carbon dioxide, dry chemical, foam or waterspray.

6.2 Environmental precautions — Do not use water jet. Direct water jet may spread the fire.

6.3 Methods and material for containment and cleaning up — 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.

6.4 Reference to other sections — See Section: 8, 13

SECTION 7: HANDLING AND STORAGE

7.1 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.

7.2	**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.
7.3	**Specific end use(s)**	Adhesives.

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/m³)	STEL (ppm)	STEL (mg/m³)	Note
Sodium Tetraborate Pentahydrate	12179-04-3	-	1	-	-	UK WEL

Note: UK 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 adequate ventilation or use appropriate containment. 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. Avoid breathing vapours. Avoid contact with skin, eyes or clothing. Wash hands before breaks and after work. Keep work clothes separately. Do not eat, drink or smoke at the work place. Wash contaminated clothing before reuse.

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.

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.

8.2.3 Environmental Exposure Controls — Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 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)

9.2 Other information

Evaporation rate	Not established.
Volatile Organic Compound Content	1000 g/L
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

SECTION 10: STABILITY AND REACTIVITY

10.1	**Reactivity**	Stable under normal conditions
10.2	**Chemical stability**	Stable under normal conditions
10.3	**Possibility of hazardous reactions**	Hazardous polymerisation will not occur.
10.4	**Conditions to avoid**	Adding Sodium Hydroxide to this material and/or heating will volatize Ammonia.
10.5	**Incompatible materials**	Acids, Peroxides, metallic copper, tin, zinc and their alloys, halogenated compounds. sodium hydroxide.
10.6	**Hazardous decomposition product(s)**	Combustion products: Ammonia

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Ingestion	Mixture: Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 2000 mg/kg bw/day.
Inhalation	Mixture: Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 20 mg/l. (Vapour)
Skin Contact	Mixture: Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 2000 mg/kg bw/day.
Skin corrosion/irritation	Mixture: Based upon the available data, the classification criteria are not met.
Serious eye damage/irritation	Mixture: Based upon the available data, the classification criteria are not met.

Respiratory or skin sensitization	Mixture: Based upon the available data, the classification criteria are not met.
Germ cell mutagenicity	Mixture: Based upon the available data, the classification criteria are not met.
Carcinogenicity	Mixture: Based upon the available data, the classification criteria are not met.
Reproductive toxicity	Mixture: Based upon the available data, the classification criteria are not met.
STOT - single exposure	Mixture: Based upon the available data, the classification criteria are not met.
STOT - repeated exposure	Mixture: Based upon the available data, the classification criteria are not met.
Aspiration hazard	Mixture: Based upon the available data, the classification criteria are not met.

11.2	**Information on other hazards**	
11.2.1	Endocrine disrupting properties	No substances identified as having endocrine-disrupting properties.
11.2.2	Other information	None known

SECTION 12: ECOLOGICAL INFORMATION

12.1	**Toxicity**	Mixture: Based upon the available data, the classification criteria are not met. Estimated Mixture LC50 >100 mg/l (Fish)
12.2	**Persistence and degradability**	No data for the mixture as a whole.
12.3	**Bioaccumulative potential**	No data for the mixture as a whole.
12.4	**Mobility in soil**	No data for the mixture as a whole.
12.5	**Results of PBT and VPVB assessment**	Not classified as PBT or vPvB.
12.6	**Endocrine disrupting properties**	No substances identified as having endocrine-disrupting properties.
12.7	**Other adverse effects**	None known

SECTION 13: DISPOSAL CONSIDERATIONS

13.1	**Waste treatment methods**	This material and its container must be disposed of as hazardous waste. Dispose of wastes in an approved waste disposal facility.
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	**IMDG**	**IATA/ICAO**
14.1	**UN number or ID 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	**Maritime transport in bulk according to IMO instruments**	Not applicable.		
14.8	**Additional Information**	None.		

SECTION 15: REGULATORY INFORMATION

15.1	**Safety, health and environmental regulations/legislation specific for the substance or mixture**	
15.1.1	**EU regulations**	
	Substance(s) of Very High Concern (SVHCs)	None.
	Authorisations and/or Restrictions On Use	None.
15.1.2	**National regulations**	None known.
	Wassergefährdungsklasse (Germany)	WGK NWG (Self classification)
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: Updated version and date. New SDS Regulation 2020/878 format, all sections have been updated to include new information. Please review SDS with care.

References:
Existing Safety Data Sheet (SDS),

EU Classification: This Safety Data Sheet was prepared in accordance with EC Regulation (EC) 1907/2006 (REACH), 1272/2008 (CLP) & 2020/878

LEGEND

ADR	ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DNEL	Derived no effect level
EC50	Half maximal effective concentration
HSE	Health and Safety Executive
IATA	IATA: International Air Transport Association
ICAO	ICAO: International Civil Aviation Organization
IMDG	IMDG: International Maritime Dangerous Goods
LC50	Lethal concentration at which 50% of the population is killed
LD50	Lethal dose at which 50% of the population is killed
LTEL	Long term exposure limit
OEL	Occupational exposure limits
PBT	PBT: Persistent, Bioaccumulative and Toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	RID: Regulations concerning the international railway transport of dangerous goods
TWA	Time Weighted Average
STEL	Short term exposure limit
vPvB	vPvB: very Persistent and very Bioaccumulative
WGK	Wassergefährdungsklasse (Germany) / Water hazard class

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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