Safety Data Sheet

ORP Buffer 468 mV

According_to_Regulation_CLP14

Version:1 Version date:28/06/2021 Language:EN

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

1.1. Product identifier

Trade name/designation	:	ORP Buffer 468 mV
Article No (user)	:	P01700115

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

Relevant identified uses	:	Laboratory chemicals.
Uses advised against	:	No additional information available.

1.3. Details of the supplier of the safety data sheet

Supplier	:	Name: Manumesure
		Street: 8 avenue du docteur Schweitzer
		Postal code/City: 69330 Meyzieu
		Country: FRANCE
		Telephone: 04 37 45 05 68
		E-mail: qualite@manumesure.fr

1.4. Emergency Telephone Number

United Kingdom: 0344 892 0111

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Hazard stat	ements (H)
Met. Corr. 1	H290	May be corrosive to metals.
Skin Corr. 1A	H314	Causes severe skin burns and eye damage.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms	
Signal word	Danger
Product identifiers	-
Hazard Statements	H290 - May be corrosive to metals.
	H314 - Causes severe skin burns and eye damage.
Supplemental Hazard information (EU)	-
Precautionary Statements - General	-

Precautionary Statements - Prevention	P234 - Keep only in original container. P260 - Do not breathe dust/fume/gas/mist/vapours/spray. P264 - Wash thoroughly after handling.
Precautionary Statements - Response	P280 - Wear protective gloves/protective clothing/eye protection/face protection. P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
	P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 - Immediately call a POISON CENTER/doctor/
Precautionary Statements - Storage Precautionary Statements - Disposal	P390 - Absorb spillage to prevent material damage. P405 - Store locked up. P501 - Dispose of contents/container to an approved waste disposal plant.

2.3. Other hazards

Adverse physicochemical effects : May be corrosive to metals. Causes severe skin burns and eye damage.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Substance	C (%)	Classification	Specific concentration limits	Note
iron (II) sulfate (1:1) heptahydrate CAS N°:7782-63-0 EC N°:231-753-5	1.0% ≤C≤ 5.0%	H302: Harmful if swallowed H315: Causes skin irritation. H319: Causes serious eye irritation	Skin Irrit. 2; H315: C ≥ 25 %	-
IDX N°:026-003-01-4 sulphuric acid	1.0% ≤C≤		Evolution $1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 $	
CAS N°:7664-93-9	1.0% SCS 5.0%	H290: May be corrosive to metals. H314: Causes severe skin burns and	Eye Irrit. 2; H319 : 5% ≤ C < 15%	-
EC N°:231-639-5 IDX N°:016-020-00-8		eye damage.	Skin Irrit. 2; H315 : 5% ≤ C < 15%	
			Skin Corr. 1A; H314 : 15% ≤ C < 100%	

3.2. Mixtures

Not available

3.3. Remark

Full text of H-statements: see section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General information	: Call a physician immediately.
Following inhalation	: Remove person to fresh air and keep comfortable for breathing.
Following skin contact	: Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.
Following eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
Following ingestion	: Rinse mouth. Do not induce vomiting. Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms	:	After skin contact : Burns. After eye contact : Serious damage to eyes. After ingestion : Burns.
Effects	:	After skin contact : Burns. After eye contact : Serious damage to eyes. After ingestion : Burns.

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

Notes for the doctor : Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media	:	Water spray.
		Dry powder.
		Foam.
		Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire: Toxic fumes may be released.

5.3. Advice for firefighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

5.4. Additional information

Not available

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

- 6.1.1. For non-emergency personnel.
- Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.
- 6.1.2. For emergency responders.

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Take up liquid spill into absorbent material.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

6.5. Additional information

Not available

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

PROTECTIVE MEASURES

- Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Wear personal protective equipment.

Advices on general occupational hygiene

- Provide eye shower and label its location conspicuously
- Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Further information on storage conditions

- Store in corrosive resistant container with a resistant inner liner. Keep only in original container. Store locked up. Store in a well-ventilated place. Keep cool.

- Incompatible materials : Metals.

7.3. Specific end uses

- No additional information available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Not available

8.2. Exposure controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment. Provide adequate ventilation as well as local exhaustion at critical locations.

Personal protection equipment



Eye/face protection	:	Recommended eye protection articles: Protective gloves.
Skin protection	:	Hand protection: Protective gloves.
		Body protection: Wear suitable protective clothing.
Respiratory protection	:	Respiratory protection necessary at: In case of insufficient ventilation, wear suitable respiratory equipment.

8.3. Additional information

Not available

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Yellow.

Odour threshold:Not availablepH:≈ 0,1 @ 25°CMelting point/freezing point:Not availableInitial boiling point and boiling range:100°CFlash point:Not availableEvaporation rate:Not availableFlammability:Not availableUpper/lower flammability or explosiveNot availablelimits:Vapour pressure:Not availableVapour pressure:Not availableRelative density:Not availableSolubility(ies):Soluble In Water.Partition coefficient: n-octanol/water (Log KOC):Not availableAuto-ignition temperature:Not availableViscosity:Not availableExplosive properties:Not availableOxidising properties:Not available	Odour:	Odourless.
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Explosive properties: Not available	Decomposition temperature:	Not available
h h - h	Viscosity:	Not available
Oxidising properties: Not available	Explosive properties:	Not available
	Oxidising properties:	Not available

9.2. Other safety information

Not available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Metals.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

10.7. Additional information

Not available

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Acute oral toxicity

Data for mixture

Not classified.

Substances

sulphuric acid (CAS: 7664-93-9)		
Species	:	Rat
Sex	:	Not available
Guideline	:	Not available

Subendpoint	Operator	Value	Unit
LD50	-	2140	mg/kg
Conclusion iron (II) sulfate (1:1) heptahydrate (: Not available (CAS: 7782-63-0)		
Species	: Mouse		
Sex	: Not available		
Guideline	: Not available		

Subendpoint	Operator	Value	Unit
LD50	-	1520	mg/kg
Conclusion	: Not available		

11.2. Acute skin toxicity

Data for mixture Not classified.

Substances Not available

11.3. Acute inhalation toxicity

Data for mixture Not classified.

Substances Not available

11.4. Skin corrosion

Data for mixture Causes severe skin burns. pH: ≈ 0,1 @ 25°C.

Substances Not available

11.5. Eye damage

Data for mixture Assumed to cause serious eye damage. pH: $\approx 0,1 @ 25^{\circ}C.$

Substances Not available

11.6. Skin sensitisation

Data for mixture Not classified.

Substances Not available

11.7. STOT RE

Data for mixture Not classified.

Substances Not available

11.8. STOT SE

Data for mixture Not classified.

Substances Not available

11.9. STOT RE

Data for mixture Not classified.

Substances Not available

11.10. Carcinogenicity

Data for mixture Not available

Substances Not available

11.11. Reproductive and Developmental Toxicity

Data for mixture Not available

Substances Not available

11.12. Genotoxicity

Data for mixture Not available

Substances Not available

11.13. In vitro genotoxicity

Data for mixture Not available

Substances

Not available

11.14. Respiratory sensitisation

Data for mixture Not available

Substances Not available

11.15. Additional information

Not available

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - general : Before neutralisation, the product may represent a danger to aquatic organisms. Hazardous to the aquatic environment, short-term (acute): Not classified. Hazardous to the aquatic environment, long-term (chronic): Not classified.

12.2. Persistence and degradability

No additional information available.

12.3. Bioaccumulative potential

No additional information available.

12.4. Mobility in soil

No additional information available.

12.5. Results of PBT and vPvB assessment

No additional information available.

12.6. Other adverse effects

No additional information available.

12.7. Additional ecotoxicological information

Not available

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Product/Packaging disposal

Waste treatment options

Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: TRANSPORT INFORMATION				
	Land transport	Inland waterway	Sea transport	Air transport (ICAO-
	(ADR/RID)	transport (ADN)	(IMDG)	TI/IATA-DGR)
14.1. UN number	1760	1760	1760	1760
14.2. UN proper shipping name	LIQUIDE CORROSIF,	LIQUIDE CORROSIF,	LIQUIDE CORROSIF,	LIQUIDE CORROSIF,
	N.S.A.	N.S.A.	N.S.A.	N.S.A.

14.3. Transport hazard class(es)				
Class or Division	8	8	8	8
Hazard label(s)	1	8	8	
14.4. Packing group	İ	I	I	I

14.5. Environmental hazards

Not available

14.6. Special precautions for user

Not available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not available

14.8. Additional information

Not available

SECTION 15: REGULATORY INFORMATION

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

This SDS has been established in accordance with REACH regulation, including its amendments: REACH Regulation (EC) No 1907/2006. This SDS has been established in accordance with CLP regulation, including its amendments: CLP Regulation EC No. 1272/2008. Not available

15.2. Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier. For this substance/mixture a chemical safety assessment has been elaborated. For this mixture, the relevant data of the Substances' Chemical safety assessment are integrated in the sections of the SDS.

15.3. Additional information

Not available

SECTION 16: OTHER INFORMATION

Creation date:	28/06/2021
Version date:	28/06/2021
Printing date:	11/07/2021

16.1. Indication of changes

Not applicable (first edition of the MSDS).

16.2. Abbreviations and acronyms

CAS: Chemical Abstract Service Number. IATA: International Air Transport Association.

IMDG: International Maritime Dangerous Goods Code.

DPD Dangerous Preparation Directive.

UN number: United Nations number.

No EC: European Commission Number.

ADN/ADNR: Regulations concerning the transport of dangerous substances in barges on the waterways.

ADR/RID: European Agreement concerning the International Carriage of Dangerous Goods by Road/Regulations concerning the international carriage of dangerous goods by rail.

CLP: Classification, labeling and packaging. VPvB: very persistent and very bioaccumulative substances.

16.3. Key literature references and sources for data

No data available.

16.4. Classification for mixtures and used evaluation method according to regulation (EC) 1272/2008 [CLP]

Classification of the mixture is in accordance with the evaluation method described in Regulation (EC) No 1272/2008.

16.5. Relevant R-, H- and EUH-phrases (Number and full text)

H290	Met. Corr. 1	May be corrosive to metals.
H302	Acute Tox. 4 ORAL	Harmful if swallowed
H314	Skin Corr. 1A	Causes severe skin burns and eye damage.
H315	Skin Irrit. 2	Causes skin irritation.
H319	Eye Irrit. 2	Causes serious eye irritation

16.6. Training advice

Refer to Sections 4, 5, 6, 7 and 8 of this safety data sheet.

16.7. Additional information

Not available

The information given in this Safety Data Sheet is based on our present knowledge and on european and national regulations. This Safety Data Sheet describes safety requirements relative to identified uses, it doesn't guarantee all the product properties particularly in the case of non identified uses. The product mustn't be used for any uses other than those identified under heading 1. Since the user's working conditions are not known by us, it is the responsability of the user to take all necessary measures to comply with legal requirements for specific uses and avoid negative health effects.