



# SAFETY DATA SHEET ( SDS )

This safety data sheet complies with the requirements of:  
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008, (EU) No. 453/2010

Revision Date 18-May-2015

WAI2 - EGHS - EUROPEAN

Revision Number 1

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

### 1.1. Product Identifier

**Product Name** pH 4.01 Buffer  
**Product Number(s)** 00654-00, 05942-21, 05942-22, 05942-24, 05942-25, 35653-01  
**Pure substance/mixture** Mixture

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

**Recommended Use** Use as laboratory reagent  
**Uses advised against** No Information available

### 1.3. Details of the supplier of the safety data sheet

**Manufacturer/Supplier** Cole-Parmer™  
North America  
625 East Bunker Court  
Vernon Hills, IL  
60061 USA  
Tel: 1-800-323-4340

**E-mail address** [info@coleparmer.com](mailto:info@coleparmer.com)

**Made in** USA

**1.4. Emergency telephone number** 888-358-4717  
8:00 am - 6:00 pm CST

**SECTION 2: HAZARDS IDENTIFICATION****2.1. Classification of the substance or mixture****Classification - Mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16.

**Symbol(s)**

Not dangerous goods

**2.2. Label elements****Product Identifier****Signal Word**

None

EUH210 - Safety data sheet available on request

P202 - Do not handle until all safety precautions have been read and understood

**2.3. Other hazards**

No information available

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.1. Substances**

Component	Chemical Formula	EC-No.	CAS-No	Weight %	DSD Classification - 67/548/EEC	CLP Classification - Regulation (EC) No 1272/2008	REACH Reg. No
Water	No information available	EEC No. 231-791-2	7732-18-5	90 - 100%	-		No information available
Potassium Hydrogen Phthalate	No information available	EEC No. 212-889-4	877-24-7	0 - 10%	-		No information available
Potassium Hydroxide	No information available	EEC No. 215-181-3	1310-58-3	0 - 10%	Xn; R22 C; R35	Acute Tox. 4 (H302) Skin Corr. 1A (H314)	No information available
Amaranth Red No. 27	No information available	EEC No. 213-022-2	915-67-3	0 - 10%	-		No information available

**Note** \*The exact percentage (concentration) of composition has been withheld as a trade secret

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16.

Full text of H- and EUH-phrases: see section 16

**SECTION 4: FIRST AID MEASURES****4.1. Description of first aid measures**

<b>General Advice</b>	Use first aid treatment according to the nature of the injury. For further assistance, contact your local Poison Control Center. Show this safety data sheet to the doctor in attendance.
<b>Eye Contact</b>	In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.
<b>Inhalation</b>	Move to fresh air. If breathing is difficult, give oxygen. If symptoms persist, obtain medical attention.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting. Call a physician or Poison Control Center immediately.
<b>Protection of First-aiders</b>	Use personal protective equipment. See Section 8 for more detail. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

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

**Most important symptoms/effects** No information available

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

**Notes to Physician** Treat symptomatically

**SECTION 5: FIREFIGHTING MEASURES****5.1. Extinguishing media****Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media**

No information available

**5.2. Special hazards arising from the substance or mixture**

Thermal decomposition can lead to release of irritating gases and vapors.

**5.3. Advice for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**SECTION 6: ACCIDENTAL RELEASE MEASURES****6.1. Personal precautions, protective equipment and emergency procedures**

**Personal Precautions** Use personal protective equipment. Evacuate personnel to safe areas.

**6.2. Environmental precautions**

**Environmental Precautions** Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

### 6.3. Methods and material for containment and cleaning up

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Cleaning Up** Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

### Reference to Other Sections

Refer to protective measures listed in Sections 7 and 8

See Section 8 for information on appropriate personal protective equipment

See Section 12 for additional Ecological Information

See Section 13 for additional waste treatment information

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

#### Advice on safe handling

To avoid risks to human health and the environment, comply with the instructions for use. Wear personal protective equipment. Avoid breathing dust/fume/gas/mist/vapours/spray. Ensure adequate ventilation, especially in confined areas.

#### General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Storage Conditions

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Keep away from direct sunlight.

### 7.3. Specific end use(s)

#### Specific Use

Laboratory reagent

#### Risk Management Methods (RMM)

The information required is contained in this Safety Data Sheet.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

Component	European Union	The United Kingdom	France	Spain	Germany
Potassium Hydroxide 1310-58-3	-	STEL: 2 mg/m <sup>3</sup> 15 min	STEL / VLCT: 2 mg/m <sup>3</sup> .	STEL / VLA-EC: 2 mg/m <sup>3</sup> (15 minutos).	-
Component	Italy	Portugal	The Netherlands	Finland	Denmark
Potassium Hydroxide 1310-58-3	-	Ceiling: 2 mg/m <sup>3</sup>	-	STEL: 2 mg/m <sup>3</sup> 15 minuutteina Ceiling: 2 mg/m <sup>3</sup>	Ceiling: 2 mg/m <sup>3</sup>
Component	Austria	Switzerland	Poland	Norway	Ireland
Potassium Hydroxide 1310-58-3	MAK-TMW: 2 mg/m <sup>3</sup> 8 Stunden	TWA: 2 mg/m <sup>3</sup> 8 Stunden	STEL: 1 mg/m <sup>3</sup> 15 minutach TWA: 0.5 mg/m <sup>3</sup> 8 godzinach	Ceiling: 2 mg/m <sup>3</sup>	STEL: 2 mg/m <sup>3</sup> 15 min

**Derived No Effect Level (DNEL)** No information available

**Predicted No Effect Concentration (PNEC)** No information available

### 8.2. Exposure controls

**Engineering Measures**

Showers  
Eyewash stations  
Ventilation systems

### Personal protective equipment

**Eye/face Protection** Wear chemical splash goggles. If splashes are likely to occur, wear:. Face-shield.

**Skin and body protection** Wear protective gloves/clothing.

**Respiratory Protection** No protective equipment is needed under normal use conditions. In case of inadequate ventilation wear respiratory protection.

**Environmental exposure controls** No information available

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

**Physical State** Liquid

**Appearance** Light red

**Odor** Odorless

**Odor Threshold** No information available

**pH Range** No information available

Property	Values	Remarks • Method
Melting point/freezing point	No information available	
Boiling Point/Range	~ 100 °C / 212 °F	
Flash Point (High in °C)	No information available	
Evaporation Rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor Density	No information available	
Specific Gravity	No information available	
Water Solubility	soluble	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition Temperature		
Decomposition Temperature	No information available	
Kinematic Viscosity	No information available	
Dynamic viscosity	No information available	
Explosive Properties	No information available	
Oxidizing Properties	No information available	

### 9.2. Other information

**Softening Point** No information available

**Molecular Weight** No information available

**VOC Content(%)** No information available

**Density** No Information available

**Bulk Density** No information available

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

No information available

### 10.2. Chemical stability

Stable under normal conditions

**Explosion Data**

Sensitivity to Mechanical Impact None  
Sensitivity to Static Discharge None

**10.3. Possibility of hazardous reactions**

None under normal processing

**10.4. Conditions to avoid**

Extremes of temperature and direct sunlight

**10.5. Incompatible materials**

No information available

**10.6. Hazardous decomposition products**

Thermal decomposition can lead to release of irritating gases and vapors

**SECTION 11: TOXICOLOGICAL INFORMATION****11.1. Information on toxicological effects****Acute Toxicity****Product Information**

Product does not present an acute toxicity hazard based on known or supplied information.

Inhalation	No information available
Eye Contact	No information available
Skin Contact	No information available
Ingestion	No information available

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	> 90 mL/kg ( Rat )		
Potassium Hydrogen Phthalate	3200 mg/kg ( Rat )		
Potassium Hydroxide	284 mg/kg ( Rat )		

**Skin Corrosion/Irritation** No information available

**Serious eye damage/eye irritation** No information available

**Sensitization** No information available

**Mutagenic Effects** No information available

**Carcinogenic effects** No information available

**Reproductive Effects** No information available

**STOT - single exposure** No information available

**STOT - repeated exposure** No information available

**Aspiration hazard** No information available

**SECTION 12: ECOLOGICAL INFORMATION****12.1. Toxicity**

Component	Freshwater Algae	Freshwater Fish	Water Flea
Potassium Hydroxide	-	80 mg/L LC50 96 h	-

**12.2. Persistence and degradability**

No information available

**12.3. Bioaccumulative potential**

No information available

Component	log Pow
Potassium Hydroxide	0.83

**12.4. Mobility in soil**

No information available

**12.5. Results of PBT and vPvB assessment**

No information available

**12.6. Other adverse effects**

No information available

**Endocrine Disruptor Information**

No information available

**SECTION 13: DISPOSAL CONSIDERATIONS****13.1. Waste treatment methods****Waste from Residues / Unused Products**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging**

Improper disposal or reuse of this container may be dangerous and illegal.

**SECTION 14: TRANSPORT INFORMATION****IMDG/IMO**

14.1 UN-No	Not Regulated
14.2 Proper Shipping Name	Not Regulated
14.3 Hazard Class	Not Regulated
Subsidiary Hazard Class	Not Regulated
14.4 Packing Group	Not Regulated
14.5 Marine Pollutant	Not Applicable
14.6 Special Provisions	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

**RID**

14.1 UN-No	Not Regulated
14.2 Proper Shipping Name	Not Regulated
14.3 Hazard Class	Not Regulated
14.4 Packing Group	Not Regulated
14.5 Environmental hazard	Not Applicable
14.6 Special Provisions	None

**ADR**

14.1 UN-No	Not Regulated
14.2 Proper Shipping Name	Not Regulated
14.3 Hazard Class	Not Regulated

14.4 Packing Group	Not Regulated
14.5 Environmental hazard	Not Applicable
14.6 Special Provisions	None

**ICAO**

14.1 UN-No	Not Regulated
14.2 Proper Shipping Name	Not Regulated
14.3 Hazard Class	Not Regulated
Subsidiary Hazard Class	Not Regulated
14.4 Packing Group	Not Regulated
14.5 Environmental hazard	Not Applicable
14.6 Special Provisions	None

**IATA**

14.1 UN-No	Not Regulated
14.2 Proper Shipping Name	Not Regulated
14.3 Hazard Class	Not Regulated
14.4 Packing Group	Not Regulated
14.5 Environmental hazard	Not Applicable
14.6 Special Provisions	None

**SECTION 15: REGULATORY INFORMATION****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

**International Inventories**

USINV	Complies
CANINV	Complies
EINECS/ELINCS	Complies
ENCS	Does not Comply
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

USINV/ TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

CANINV/ DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japanese Existing and New Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

**15.2. Chemical safety assessment**

A chemical safety assessment according to regulation (EC) No. 1907/2006 is not required

**SECTION 16: OTHER INFORMATION****Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of R-phrases referred to under sections 2 and 3**

No information available



**Legend - SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

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**Expiration Date** SDS is valid 3 years from the revision date. Contact info@coleparmer.com for the latest revision.

**Reason for revision** Update to CLP Format

**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

**Disclaimer**

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of Safety Data Sheet**