



SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: pH 4.0 Buffer
Part Number: 57005

Pyxis Lab Inc.
1729 Majestic Drive Suite 5
Lafayette, CO 80026
866-203-8397

Emergency Telephone Numbers:

Chemtrec: 800-262-8200

Chemical Name: Not applicable
CAS Number: Not applicable
Additional CAS No. (for hydrated forms): Not applicable
Chemical Formula: Not applicable
Chemical Family: Not applicable
Intended Use: Buffer

2. HAZARDS IDENTIFICATION

GHS Classification:

Hazard categories: Serious Eye Damage/Eye Irritation: Eye Irrit. 2A

GHS Label Elements:

W A R N I N G

Hazard statements: Causes serious eye irritation.

Precautionary statements: Wear protective gloves / protective clothing / eye protection / face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

HMI S:

Health: 0

Flammability: 0

Reactivity: 0

Protective Equipment: X - See protective equipment, Section 8.

NFPA:

Health: 0

Flammability: 0

Reactivity: 0

Symbol: Not applicable

WHMIS Hazard Classification: Not applicable

WHMIS Symbols: Not applicable

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Components according to GHS:

Potassium Acid Phthalate

CAS Number: 877-24-7

Chemical Formula: $C_8H_5KO_4$

GHS Classification: Acute Tox 5, H303; Acute Tox. Derm. 4, H312; Eye Irrit. 2A, H319

Percent Range (Trade Secret): 1.0 - 5.0

Percent Range Units: weight / volume

PEL: 15 mg/m³ as total dust; 5 mg/m³ as respirable dust

T LV : 10 mg/m as inhalable dust; 3 mg/m as respirable dust

WHMI S Symbols: Not applicable

Formaldehyde

CAS Number: 50-00-0

Chemical Formula: CH₂O

GHS Classification: F lam. Liq. 4, H227; A cute Tox. 3 -Orl, H301; A cute Tox. 3 -D erm, H311; S kin Corr. 1B, H314; S kin S ens. 1, H317; A cute Tox. 3-Inh, H331; R esp. S ens. 1, H334; Muta. 2, H341; Carc. 2, H351; R epr. 2, H361; S TOT S ingle 1, H370; A quatic A cute 2, H401

Percent Range (Trade Secret): < 0.1

Percent Range Units: weight / weight

PEL: 0.75 ppm

T LV : 0.3 ppm

WHMI S Symbols: A cute P oisonOther Toxic Effects

Methyl Alcohol

CAS Number: 67-56-1

Chemical Formula: CH₃OH

GHS Classification: F lam. Liq 2, H225; A cute Tox 3 -Orl, H301; A cute Tox 3 -D erm, H311; S kin Irrit. 2, H315; Eye Irrit. 2A, H319; A cute Tox 3 -Inh, H331; Muta. 2, H341; R epr. 2, H361; S TOT S E1, H370

Percent Range (Trade Secret): < 0.1

Percent Range Units: weight / weight

PEL: 200 ppm

T LV : 200 ppm

WHMI S Symbols: A cute P oisonF lammable / CombustibleOther Toxic Effects

Hazardous Components according to GHS: No

Demineralized Water

CAS Number: 7732-18-5

Chemical Formula: H₂O

GHS Classification: Not a dangerous substance according to GHS.

Percent Range (Trade Secret): >95.0

Percent Range Units: volume / volume

PEL: Not established

T LV : Not established

WHMI S Symbols: Not applicable

4 . FIRST AID MEASURES

General Information: In the event of exposure, show this Material Safety Data Sheet and label (where possible) to a doctor.

Advice to doctor: Treat symptomatically.

Eye Contact: Flush eyes with water. Call physician if irritation develops.

Skin Contact (First Aid): Wash skin with soap and plenty of water.

Inhalation: None required.

Ingestion (First Aid): Give large quantities of water. Call physician immediately.

5. FIRE FIGHTING MEASURES

Flammable Properties: Material will not burn.

Fire Fighting Instruction: As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.

Extinguishing Media: Use media appropriate to surrounding fire conditions

Extinguishing Media NOT To Be Used: Not applicable

Fire / Explosion Hazards: This product will not burn or explode.
Hazardous Combustion Products: Not applicable

6 . ACCIDENTAL RELEASE MEASURES

Spill Response Notice:

Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance.

Containment Technique: Stop spilled material from being released to the environment.

Clean-up Technique: Cover spilled material with an alkali, such as soda ash or sodium bicarbonate. Scoop up slurry into a large beaker. Adjust to a pH between 6 and 9 with an alkali, such as soda ash or sodium bicarbonate. Flush reacted

material to the drain with a large excess of water. Decontaminate the area of the spill with a soap solution.

Evacuation Procedure: Evacuate as needed to perform spill clean-up. If conditions warrant, increase the size of the evacuation.

DOT Emergency Response Guide Number: Not applicable

7 . HANDLING AND STORAGE

Handling: Avoid contact with eyes Wash thoroughly after handling.

Storage: Keep container tightly closed when not in use. Protect from: heat

Flammability Class: Not applicable

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Maintain general industrial hygiene practices when using this product.

Personal Protective Equipment:

Eye Protection: safety glasses with top and side shields

Skin Protection: lab coat

Inhalation Protection: adequate ventilation

Precautionary Measures: Avoid contact with: eyes Wash thoroughly after handling.

TLV : Not established

PEL: Not established

For Occupational Exposure Limits (OEL) for ingredients, see section 3 - Composition/Information on Ingredients.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, colorless liquid

Physical State: Liquid

Molecular Weight: Not applicable

Odor: None

Odor Threshold: Odorless

pH: 4.01

Metal Corrosivity:

Corrosivity Classification: Not classified as corrosive to metals according to GHS criteria.

Steel: Not determined

Aluminum: Not determined

Viscosity: 1x10⁻⁶ m/s

Specific Gravity/ Relative Density (water = 1; air =1): 0.995

Solubility:

Water: Soluble

Acid: Soluble

Other: Not determined

Partition Coefficient (n-octanol / water): Not applicable

Coefficient of Water / Oil: Not applicable

Melting Point: Not determined

Decomposition Temperature: Not determined

Boiling Point: >100°C
Vapor Pressure: Not determined
Vapor Density (air = 1): Not determined
Evaporation Rate (water = 1): 0.86
Volatile Organic Compounds Content: Not applicable
Flammable Properties: Material will not burn.
Flash Point: Not applicable
Method: Not applicable
Flammability Limits:
Lower Explosion Limits: Not applicable
Upper Explosion Limits: Not applicable
Autoignition Temperature: Not applicable
Explosive Properties:
Not classified according to GHS criteria.
Oxidizing Properties:
Not classified according to GHS criteria.
Reactivity Properties:
Not classified as self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria.
Gas under Pressure:
Not classified according to GHS criteria.

10. STABILITY AND REACTIVITY

Chemical Stability: Stable when stored under proper conditions.
Mechanical Impact: None reported
Static Discharge: None reported.
Reactivity / Incompatibility: None reported
Hazardous Decomposition: None reported
Conditions to Avoid: Extreme temperatures Evaporation

11. TOXICOLOGICAL INFORMATION

Toxicokinetics, Metabolism and Distribution: No health effects are anticipated in normal use.
Toxicologically Synergistic Products: None reported
Acute Toxicity: Based on classification principles, the classification criteria are not met. Acute Toxicity Estimate (ATE)
- Calculated from Ingredient Toxicity Data
ATE Oral R at LD 50= 104644 mg/kg
ATE Dermal Rabbit LD 50= 384615 mg/kg
ATE Inhalation R at LC50= 493 mg/l
Specific Target Organ Toxicity - Single Exposure (STOT-SE): Based on classification principles, the classification criteria are not met.
Specific Target Organ Toxicity - Repeat Exposure (STOT-RE): Not applicable
Skin Corrosion/Irritation: Based on classification principles, the classification criteria are not met.
Eye Damage: Based on classification principles, the classification criteria are not met.
Sensitization: Based on classification principles, the classification criteria are not met.
CMR Effects/Properties (carcinogenic, mutagenic or toxic to reproduction): Contains a reproductive toxin.
Developmental toxicity associated with the substance or an ingredient of the mixture have been reported.
This product does NOT contain any IARC listed chemicals.
This product does NOT contain any NTP listed chemicals.
This product does NOT contain any OSHA listed carcinogens.
Symptoms/Effects:
Ingestion: No Effects Anticipated
Inhalation: No effects anticipated
Skin Absorption: No effects anticipated
Chronic Effects: No effects anticipated
Medical Conditions Aggravated: None reported

12. ECOLOGICAL INFORMATION

Product Ecological Information: --

No ecological data available for this product.

Ingredient Ecological Information: --

No ecological data available for the ingredients of this product.

13. DISPOSAL CONSIDERATIONS

EPA Waste ID Number: Not applicable

Special Instructions (Disposal): Adjust to a pH between 6 and 9 with an alkali, such as soda ash or sodium bicarbonate. Open cold water tap completely, slowly pour the reacted material to the drain.

Empty Containers: Rinse three times with an appropriate solvent. Dispose of empty container as normal trash.

NOT ICE (Disposal): These disposal guidelines are based on federal regulations and may be superseded by more stringent state or local requirements. Please consult your local environmental regulators for more information. In Europe: Chemical and analysis solutions must be disposed of in compliance with the respective national regulations. Product packaging must be disposed of in compliance with the country-specific regulations or must be passed to a packaging return system.

14. TRANSPORT INFORMATION

D.O.T.:

D.O.T. Proper Shipping Name: Not Currently Regulated

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Hazard Class: NA

Subsidiary Risk: NA

ID Number: NA

Packaging Group: NA

T.D.G.:

Proper Shipping Name: Not Currently Regulated

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Hazard Class: NA

Subsidiary Risk: NA

UN Number/PI N: NA

Packaging Group: NA

I.C.A.O.:

I.C.A.O. Proper Shipping Name: Not Currently Regulated

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Hazard Class: NA

Subsidiary Risk: NA

ID Number: NA

Packaging Group: NA

I.M.O.:

Proper Shipping Name: Not Currently Regulated

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Hazard Class: NA

Subsidiary Risk: NA

ID Number: NA

Packaging Group: NA

Marine Pollutant:

Additional Information: There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is NOT in a set or kit, the classification given above applies. If the item IS part of a set or kit, the classification would change to the following: U N3316 Chemical Kit, Class 9, P G II or III. If the item is not regulated, the Chemical Kit classification does not apply.

15. REGULATORY INFORMATION

U.S. Federal Regulations:

O.S.H.A.: This product does not meet the criteria for a hazardous substance as defined in the Hazard Communication

Standard. (29 CFR 1910.1200)

E.P.A.:

S.A.R.A. Title III Section 311/312 Categorization (40 CFR 370): This product is not hazardous under 29 CFR 1910.1200 and therefore is not covered by Title III under SARA.

S.A.R.A. Title III Section 313 (40 CFR 372): This product does NOT contain any chemical subject to the reporting requirements of Section 313 of Title III of SARA.

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302 (EHS) TPQ (40 CFR 355): Not applicable

304 CERCLA RQ (40 CFR 302.4): Not applicable

304 EHS RQ (40 CFR 355): Not applicable

Clean Water Act (40 CFR 116.4): Not applicable

RCRA: Contains no RCRA regulated substances.

State Regulations:

California Prop. 65: No Prop. 65 listed chemicals are present in this product.

Identification of Prop. 65 Ingredient(s): None

California Perchlorate Rule CCR Title 22 Chap 33: Not applicable

Trade Secret Registry: Not applicable

National Inventories:

U.S. Inventory Status: All ingredients in this product are listed on the TSCA 8(b) Inventory (40 CFR 710).

CAS Number: Not applicable

Canadian Inventory Status: All ingredients of this product are DSL Listed.

EEC Inventory Status: All ingredients used to make this product are listed on EINECS / ELINCS.

Australian Inventory (AICS) Status: All ingredients are listed.

New Zealand Inventory (NZIO) Status: All components either listed or exempt.

Korean Inventory (KECI) Status: All components of this product are either listed, listed as the anhydrous compound or exempt.

Japan (ENCS) Inventory Status: All components either listed or exempt.

China (PRC) Inventory (MEP) Status: All components either listed or exempt.

16. OTHER INFORMATION

References: 29 CFR 1900 - 1910 (Code of Federal Regulations - Labor). Air Contaminants, Federal Register, Vol. 54,

No. 12. Thursday, January 19, 1989. pp. 2332-2983. TLV's Threshold Limit Values and Biological Exposure Indices for 1992-1993. American Conference of Governmental Industrial Hygienists, 1992. Technical Judgment. In-house

information. Fire Protection Guide on Hazardous Materials, 10th Ed. Quincy, MA: National Fire Protection Association, 1991.

Complete Text of H phrases referred to in Section 3: Not applicable H319 Causes serious eye irritation. H351

Suspected of causing cancer. H331 Toxic if inhaled. H311 Toxic in contact with skin. H301 Toxic if swallowed.

H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H225 Highly flammable liquid and

vapor. H370 Causes damage to organs.

Revision Summary: Substantial revision to comply with EU Reg 1272/2008, Reg 1907/2006 and UNGHS (S T/S G/A C.10/36/Ad d.3).

Date of MSDS Preparation:

Day: 28

Month: January

Year: 2015

NA - Not Applicable
ND - Not Determined
NV - Not Available

w/w - weight/weight
w/v - weight/volume
v/v - volume/volume

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE.
HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA
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