

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name: Acetate Buffer Solution, pH 4.00, No Additive,
Product number(s): 5004000, 5002000, 5003000, 5005000

1.2 Details of the supplier of the safety datasheet

Borges & Mahoney Co
100 Lincoln Rd East
Vallejo, CA 94591
707-643-3300 ph
707-643-3367 fx

1.3 Emergency telephone number

For domestic USA - Chemtrec: +1 800-424-9300, contract # 643968

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29CFR1910 (OSHAHCS)

Skin Irrit. 2 H315
Eye Irrit. 2A H319

2.2 GHS Label elements, including precautionary statements

Pictogram(s)



Signal word **Danger**

Hazard statement(s)

H315 - Causes skin irritation
H319 - Causes serious eye irritation

Precautionary statements(s)

P264 - Wash exposed skin thoroughly after handling
P280 - Wear protective gloves, eye protection
P302+P352 - IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P362+P364 - Take off contaminated clothing and wash it before reuse
P332+P313 - If skin irritation occurs: Get medical advice/attention
P337+P313 - If eye irritation persists: Get medical advice/attention

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 :

Name	CAS number	%	GHS-US classification
Acetic acid, glacial	64-19-7	45.8	Flam. Liq. 3, H226; Skin Corr. 1B, H314; Eye Dam. 1, H318

Sodium Hydroxide	6131-90-4	24.3	Skin Irrit. 2 H315; Eye Irrit. 2A H319
Water	7732-18-5	29.9	N/A

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

If inhaled

Assure fresh air breathing. Allow the victim to rest.

In case of skin contact

Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

In case of eye contact

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.

If swallowed

Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention

4.2 Most important symptoms and effects, both acute and delayed

Symptoms/injuries after skin contact : Causes skin irritation.

Symptoms/injuries after eye contact : Causes serious eye irritation

4.3 Indication of any immediate medical attention and special treatment needed

No additional information available

5. FIREFIGHTING MEASURES

5.1 Suitable extinguishing media

Foam. Dry powder. Carbon dioxide. Water spray. Sand. Do not use a heavy water stream.

5.2 Special hazards arising from the substance or mixture

Hazards

No additional information available

5.3 Advice for firefighters

Advice

Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Equipment

Do not enter fire area without proper protective equipment, including respiratory protection

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Protective equipment : Safety glasses. Gloves.

Emergency procedures : Evacuate unnecessary personnel.

For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2 Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3 Methods and materials for containment and cleaning up

Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4 Reference to other sections

See Heading 8. Exposure controls and personal protection.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container closed when not in use.

Incompatible products : Strong oxidizers. Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

7.3 Specific end user(s)

No additional information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameter

Components with workplace control parameters

Component	CAS-No.	Control parameters	Value
Acetic acid, glacial	64-19-7	ACGIH TWA / STEL	10 ppm
		OSHA PEL	10 ppm / 25 mg/m ³

8.2 Exposure controls

Appropriate Engineering controls

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation.

Personal protective equipment

Eye/face protection

Chemical goggles or safety glasses.

Skin and Hand protection

Wear suitable protective clothing.

Body protection

Avoid all unnecessary exposure.

Respiratory protection

Wear appropriate mask.

Other information

Do not eat, drink or smoke during use.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state:	Amber Liquid
Color	colorless
Upper/lower flammability or explosive limits	No data available
Odor	vinegar-like
Odor threshold	No data available
Vapor pressure	No data available
Vapor density	No data available
pH	4
Relative density	No data available
Melting point	No data available

Freezing point
Initial Boiling point and boiling range
Flash point
Evaporation rate
Flammability (solid, gas)
Water solubility

No data available
No data available
No data available
No data available
No data available
Soluble in water.

Water: Solubility in water of component(s) of the mixture :
• Acetic Acid: Complete • Sodium Acetate, Trihydrate: 76.2 g/100ml

Partition coefficient: n-octanol/water
Auto-ignition temperature
Decomposition temperature
Viscosity

No data available
No data available
No data available
No data available

9.2 Other Information

no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

No additional information available

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Not established.

10.4 Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5 Incompatible materials

Strong oxidizers. Strong acids. Strong bases.

10.6 Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Not classified

Water (7732-18-5)

LD50 oral rat ≥ 90000 mg/kg

ATE US (oral) 90000 mg/kg bodyweight

Skin corrosion/irritation

Causes skin irritation.

pH: 4

Serious eye damage/eye irritation

Causes serious eye irritation.

pH: 4

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

no data available

Carcinogenicity

Not classified.

Reproductive toxicity

no data available

Specific target organ toxicity – single exposure

no data available

Specific target organ toxicity – repeated exposure

no data available

Aspiration hazard

No data available

Additional Information

No additional information available.

12. ECOLOGICAL INFORMATION**12.1 Toxicity**

Acetic Acid (64-19-7)

LC50 fishes 1 75 mg/l (96 h; *Lepomis macrochirus*)

EC50 Daphnia 1 47 mg/l (24 h; *Daphnia magna*; Not neutralized)

Acetic Acid (64-19-7)

EC50 other aquatic organisms 1 > 5000 mg/l (5 h; Activated sludge)

LC50 fish 2 94 mg/l (96 h; *Oryzias latipes*)

EC50 Daphnia 2 95 mg/l (24 h; *Daphnia magna*; Static system)

TLM fish 1 100 ppm (96 h; *Carassius auratus*)

Threshold limit algae 1 90 mg/l (192 h; *Microcystis aeruginosa*; Neutralized)

Threshold limit algae 2 4000 mg/l (192 h; *Scenedesmus quadricauda*; Neutralized)

12.2 Persistence and degradability

Acetate Buffer for Chlorine, pH 4.0

Persistence and degradability Not established

Acetic Acid (64-19-7)

Persistence and degradability Readily biodegradable in water. Inherently biodegradable. Biodegradable in the soil.

Biochemical oxygen demand (BOD) 0.6 - 0.74 g O₂/g substance

Chemical oxygen demand (COD) 1.03 g O₂/g substance

ThOD 1.07 g O₂/g substance

BOD (% of ThOD) 0.56 - 0.69 % ThOD

Water (7732-18-5)

Persistence and degradability Not established.

12.3 Bioaccumulative potential

Acetate Buffer for Chlorine, pH 4.0

Bioaccumulative potential Not established.

Acetic Acid (64-19-7)

Log Pow -0.31 (Experimental value)

Bioaccumulative potential Bioaccumulation: not applicable.

Sodium Acetate, Trihydrate (6131-90-4)

Bioaccumulative potential Not established.

Water (7732-18-5)

Bioaccumulative potential Not established.

12.4 Mobility in soil

Acetic Acid (64-19-7)

Surface tension 0.028 N/m (20 °C)

12.5 Results in PBT and vPvB assessment

No data available

12.6 Other adverse effects

Effect on ozone layer : No additional information available
Effect on the global warming : No known ecological damage caused by this product.
Other information : Avoid release to the environment.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Dispose in a safe manner in accordance with local/national regulations.

Contaminated Container

Avoid release to the environment.

14. TRANSPORT INFORMATION

In accordance with DOT

DOT NA No.	UN2790
DOT Proper Shipping Name	Acetic acid solution more than 10% but less than 50% acid, by weight
Hazardous Class	8
Packing group (DOT)	III
Reportable Quantity (RQ)	5000#
Hazard Labels:	8



15. REGULATORY INFORMATION

US Federal regulations

Acetic Acid (64-19-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Not listed on the United States SARA Section 313

RQ (Reportable quantity, section 304 of EPA's List of Lists) : 5000 lb

Sodium Acetate, Trihydrate (6131-90-4)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

International regulations

CANADA

Acetate Buffer for Chlorine, pH 4.0

WHMIS Classification

Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Acetic Acid (64-19-7)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification

Class B Division 3 - Combustible Liquid

Class E - Corrosive Material

Sodium Acetate, Trihydrate (6131-90-4)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification

Uncontrolled product according to WHMIS classification criteria

Water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification
Uncontrolled product according to WHMIS classification criteria

National regulations

Acetic Acid (64-19-7)
Listed on the Canadian IDL (Ingredient Disclosure List)

Sodium Acetate, Trihydrate (6131-90-4)
Not listed on the Canadian IDL (Ingredient Disclosure List)

TSCA Inventory List:

All of the ingredients (or their hydrate forms) are listed.

CERCLA Reportable Quantity (RQ):

CAS# 64-19-7: RQ = 5000 pounds.

SARA Section 302 Threshold Planning Quality (TPQ):

None of the ingredients have a TPQ.

SARA Title Codes:

CAS # 64-19-7: acute, chronic, flammable.

OSHA:

This product is not considered to be highly hazardous by OSHA Hazard Communication Standard.

16. OTHER INFORMATION

HMIS Rating

HEALTH: 3

FIRE: 0

REACTIVITY: 0

SPECIFIC HAZARD: N/A

Further Information

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