According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 03.30.2017

TEAB/Acetic Acid Blend

SECTION 1: Identification

Product identifier

Product name: TEAB/Acetic Acid Blend Product code: TE5504SS

Recommended use of the product and restriction on use

Relevant identified uses: Laboratory Chemicals Uses advised against: Not determined or not applicable. Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

Manufacturer: United States AquaPhoenix Scientific, Inc. 860 Gitts Run Road Hanover, PA 17331 1-717-632-1291

Emergency telephone number: Canada ChemTel: (24-hour) +1(800)255-3924 +1(813)248-0585 (International)

SECTION 2: Hazard(s) identification

GHS classification:

Flammable liquids, category 3 Serious eye damage, category 1 Skin corrosion, category 1A Corrosive to metals, category 1 Specific target organ toxicity - single exposure, category 3, respiratory irritation

Label elements

Hazard pictograms:



Signal word: Danger

Hazard statements:

H226 Flammable liquid and vapor

H290 May be corrosive to metals

H318 Causes serious eye damage

H314 Causes severe skin burns and eye damage

H335 May cause respiratory irritation

Precautionary statements:

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking P280 Wear protective gloves/protective clothing/eye protection/face protection P260 Do not breathe dust/fume/gas/mist/vapors/spray

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P271 Use only outdoors or in a well-ventilated area P264 Wash skin thoroughly after handling P234 Keep only in original container P270 Do not eat, drink or smoke when using this product. P233 Keep container tightly closed P240 Ground/bond container and receiving equipment P241 Use explosion-proof electrical/ventilating/light/equipment P242 Use only non-sparking tools P243 Take precautionary measures against static discharge P370+P378 In case of fire: Use agents recommended in section 5 for extinction P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. P321 Specific treatment (see supplemental first aid instructions on this label). P363 Wash contaminated clothing before reuse P304+P340+P310 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician P301+P330+P331+P310 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician. P303+P361+P353+P310 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician. P390 Absorb spillage to prevent material damage P405 Store locked up P406 Store in corrosive resistant stainless steel container with a resistant inner liner

P403+P233 Store in a well ventilated place. Keep container tightly closed

P501 Dispose of contents and container as instructed in Section 13

Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 64-19-7	Acetic Acid	80
CAS number: 71-91-0	Tetrylammonium bromide	20

Additional Information: None

SECTION 4: First aid measures

Description of first aid measures

General notes:

Not determined or not applicable.

After inhalation:

Move exposed individual to fresh air Loosen clothing as necessary and position individual in a comfortable position Maintain an unobstructed airway Immediately call a POISON CONTROL CENTER or seek medical attention

After skin contact:

Immediately remove all contaminated clothing Wash affected area with soap and water Immediately call a POISON CONTROL CENTER or seek medical attention

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After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes Remove contact lens(es) if able to do so during rinsing Immediately call a POISON CONTROL CENTER or seek medical attention

After swallowing:

Immediately call a POISON CONTROL CENTER or seek medical attention Do not induce vomiting

Rinse mouth and then drink plenty of water

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

Not determined or not applicable.

Delayed symptoms and effects:

Not determined or not applicable.

Immediate medical attention and special treatment

Specific treatment:

Not determined or not applicable.

Notes for the doctor:

Not determined or not applicable.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:

Use Water (fog only), dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam

Unsuitable extinguishing media:

Not determined or not applicable.

Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors Vapors can flow to distant ignition sources and flashback Liquid is volatile and may generate an explosive atmosphere

Special protective equipment for firefighters:

Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit

Special precautions:

Shut off sources of ignition Carbon monoxide and carbon dioxide may form upon combustion Heating causes a rise in pressure, risk of bursting and combustion

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation Ensure air handling systems are operational Wear protective eye wear, gloves and clothing Beware of vapors accumulating to form explosive concentrations Vapors can accumulate in low areas

Environmental precautions:

Should not be released into the environment Prevent from reaching drains, sewer or waterway

Methods and material for containment and cleaning up:

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

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Wear protective eye wear, gloves and clothing Use spark-proof tools and explosion-proof equipment Absorb with non-combustible liquid-binding material (sand, diatomaceous earth (clay), acid binders, universal binders) Dispose of contents / container in accordance with local regulations

Reference to other sections:

Not determined or not applicable.

SECTION 7: Handling and storage

Precautions for safe handling:

Use only with adequate ventilation.

Avoid breathing mist or vapor.

Do not eat, drink, smoke or use personal products when handling chemical substances. Take precautionary measures against electrostatic discharges.

Use only non-sparking tools.

Conditions for safe storage, including any incompatibilities:

Keep container tightly sealed.

Protect from freezing and physical damage.

Store in a cool, well-ventilated area.

Store away from all ignition sources (open flames, hot surfaces, direct sunlight, spark sources).

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
ACGIH	Acetic Acid	64-19-7	ACGIH TLV TWA 10 ppm
	Acetic Acid	64-19-7	ACGIH TLV STEL 15 ppm
United States (OSHA)	Acetic Acid	64-19-7	OSHA PEL TWA 10 ppm
	Acetic Acid	64-19-7	OSHA PEL TWA 25 mg/m ³
NIOSH	Acetic Acid	64-19-7	NIOSH REL TWA 10 ppm
	Acetic Acid	64-19-7	NIOSH REL TWA 25 mg/m ³
	Acetic Acid	64-19-7	NIOSH REL ST 15 ppm
	Acetic Acid	64-19-7	NIOSH REL ST 37 mg/m ³

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Information on monitoring procedures:

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. Biological monitoring may also be appropriate for some substances.

Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above. Use explosion-proof ventilation equipment.

Personal protection equipment

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Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

Skin and body protection:

Select glove material impermeable and resistant to the substance.

Wear appropriate clothing to prevent any possibility of skin contact.

Respiratory protection:

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

General hygienic measures:

Avoid contact with skin, eyes and clothing. Wash hands before breaks and at the end of work. Wash contaminated clothing before reuse.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Clear, tan-gold liquid
Odor	Vinegar-like
Odor threshold	Not available
рН	Not available
Melting point/freezing point	Not available
Initial boiling point/range	Not available
Flash point (closed cup)	39°C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Upper flammability/explosive limit	Not available
Lower flammability/explosive limit	Not available
Vapor pressure	Not available
Vapor density	Not available
Density	Not available
Relative density	Not available
Solubilities	Not determined or not available.
Partition coefficient (n-octanol/water)	Not available
Auto/Self-ignition temperature	Not available
Decomposition temperature	Not available
Dynamic viscosity	Not available
Kinematic viscosity	Not available
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

Other information

SECTION 10: Stability and reactivity

Reactivity:

Does not react under normal conditions of use and storage.

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Chemical stability:

Stable under normal conditions of use and storage.

Possibility of hazardous reactions:

None under normal conditions of use and storage.

Conditions to avoid:

None known.

Incompatible materials:

None known.

Hazardous decomposition products:

None known.

SECTION 11: Toxicological information

Acute toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Name	Route	Result
Tetrylammonium bromide	oral	LD50 - Mouse - 2,000 mg/kg

Skin corrosion/irritation

Assessment: Causes severe skin burns and eye damage

Product data: No data available.

Substance data:

Name	Result
Acetic Acid	Causes severe skin burns and eye damage.

Serious eye damage/irritation

Assessment: Causes serious eye damage

Product data: No data available.

Substance data: No data available.

Respiratory or skin sensitization

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Carcinogenicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

International Agency for Research on Cancer (IARC): None of the ingredients are listed. **National Toxicology Program (NTP):** None of the ingredients are listed.

Germ cell mutagenicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Reproductive toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

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Specific target organ toxicity (single exposure)

Assessment: May cause respiratory irritation

Product data: No data available.

Substance data:

Name	Result
-	Specific Target Organ Toxicity, Single Exposure - May cause respiratory irritation.

Specific target organ toxicity (repeated exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Information on likely routes of exposure: No data available.

Symptoms related to the physical, chemical and toxicological characteristics: No data available. Other information: No data available.

SECTION 12: Ecological information

Acute (short-term) toxicity

Assessment: Based on available data, the classification criteria are not met. **Product data:** No data available.

Substance data: No data available.

Chronic (long-term) toxicity

Product data: No data available.

Substance data: No data available.

Persistence and degradability

Product data: No data available.

Substance data: No data available.

Bioaccumulative potential

Product data: No data available. Substance data: No data available.

Mobility in soil

Product data: No data available.

Substance data: No data available.

Other adverse effects: No data available.

SECTION 13: Disposal considerations

Disposal methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities

SECTION 14: Transport information

United States Transportation of dangerous goods (49 CFR DOT)

UN number

UN 2790

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UN proper shipping name	Acetic Acid	
UN transport hazard class(es)	8	CORROSUE
Packing group	П	
Environmental hazards	Marine Pollutant	
Special precautions for user	None	

International Maritime Dangerous Goods (IMDG)

UN number	UN 2790
UN proper shipping name	Acetic Acid
UN transport hazard class(es)	8
Packing group	II
Environmental hazards	Marine Pollutant
Special precautions for user	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	UN 2790	
UN proper shipping name	Acetic Acid	
UN transport hazard class(es)	8	CORRECTIVE A
Packing group	II	
Environmental hazards	Marine Pollutant	
Special precautions for user	None	

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code		
Bulk Name	None	
Ship type	None	
Pollution category	None	

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA):

(54-19-7	Acetic Acid	Listed
[71-91-0	Tetrylammonium bromide	Listed
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Significant New Use Rule (TSCA Section 5): Not determined.

Export notification under TSCA Section 12(b): Not determined.

SARA Section 311/312 hazards:

4	Acute	Chronic	Fire	Pressure	Reactive
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Acetic Acid Ble	nd				
No	No No No No				
SARA Section 3	02 extremely haza	rdous substances	: Not determined.	L.	
SARA Section 3	13 toxic chemicals:	Not determined.			
CERCLA:					
64-19-7	Acetic Acid			Listed	5000
RCRA: Not deterr	mined.			ŀ	•
Section 112(r) o	of the Clean Air Act	: (CAA): Not deterr	nined.		
Massachusetts	Right to Know:				
64-19-7	Acetic Acid				Liste
71-91-0	Tetrylammonium bromide				Not Liste
New Jersey Righ	nt to Know:				
64-19-7	Acetic Acid			Not Liste	
71-91-0	Tetrylammonium bromide				Not Liste
New York Right	to Know:				
64-19-7	Acetic Acid			Liste	
71-91-0	Tetrylammonium bromide				Not Liste
Pennsylvania Ri	ight to Know:				
64-19-7	Acetic Acid			Not Liste	
71-91-0	Tetrylammonium bromide				Not Liste

SECTION 16: Other information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with OSHA HCS 2012 guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered 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 materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

NFPA: 3-2-1

HMIS: 3-2-1

Initial preparation date: 03.30.2017

End of Safety Data Sheet