According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 12.13.2017

Lactic Acid

SECTION 1: Identification

Product identifier

Product name: Lactic Acid **Product code:** S25374

Recommended use of the product and restriction on use

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

Manufacturer or supplier details

Manufacturer: Supplier:

AquaPhoenix Scientific 860 Gitts Run Road	Fisher Science Education 6771 Silver Crest Road
Hanover	Nazareth
PA 17331	PA 18064
(717) 632-1291	800 955-1177

Emergency telephone number: United States

Emergency Telephone No.: 800-255-3924

SECTION 2: Hazard identification

GHS classification:

Corrosive to metals, category 1 Skin irritation, category 2 Serious eye damage, category 1

Label elements

Hazard pictograms:



Signal word: Danger

Hazard statements:

H290 May be corrosive to metals H315 Causes skin irritation H318 Causes serious eye damage

Precautionary statements:

P234 Keep only in original containerP264 Wash skin thoroughly after handlingP280 Wear protective gloves/protective clothing/eye protection/face protectionP390 Absorb spillage to prevent material damage

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 12.13.2017

Lactic Acid

P321 Specific treatment (see supplemental first aid instructions on this label).

P362 Take off contaminated clothing and wash before reuse

P302+P352 If on skin: Wash with soap and water

P332+P313 If skin irritation occurs: Get medical advice/attention

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. P406 Store in corrosive resistant stainless steel container with a resistant inner liner

Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 50-21-5	Lactic Acid	85
CAS number: 7732-18-5	Water, purified	15

Additional Information: None

SECTION 4: First-aid measures

Description of first-aid measures

General notes:

Not determined or not available.

After inhalation:

Loosen clothing as necessary and position individual in a comfortable position Maintain an unobstructed airway Get medical advice/attention if you feel unwell

After skin contact:

Rinse affected area with soap and water If symptoms develop or persist, seek medical attention Wash affected area with soap and water Seek medical attention if symptoms develop or persist

After eye contact:

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

After ingestion:

Rinse mouth thoroughly Seek medical attention if irritation, discomfort, or vomiting persists

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

Not determined or not available.

Delayed symptoms and effects:

Not determined or not available.

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 12.13.2017

Lactic Acid

Immediate medical attention and special treatment

Specific treatment:

Not determined or not available.

Notes for the doctor:

Not determined or not available.

SECTION 5: Fire-fighting measures

Extinguishing media

Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

Unsuitable extinguishing media:

Not determined or not applicable.

Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors May form corrosive mixtures with water

Special protective equipment for firefighters:

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

Special precautions:

Not determined or not applicable.

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

Environmental precautions:

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

Methods and material for containment and cleaning up:

Wear protective eye wear, gloves and clothing 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.

Conditions for safe storage, including any incompatibilities:

Keep container tightly sealed.

Protect from freezing and physical damage.

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 12.13.2017

Lactic Acid

Store in a cool, well-ventilated area.

Store in corrosive resistant container with a resistant inner lining.

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

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

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.

Personal protection equipment

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 (physical state, color):	Colorless, viscous liquid
Odor:	Acrid odor
Odor threshold:	Not determined or not available.
pH-value:	2.8 (10g/L aq. Sol.)
Melting/Freezing point:	18°C
Boiling point/range:	122°C (252°F)
Flash point:	>110°C
Evaporation rate:	Not determined or not available.

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 12.13.2017

Lactic Acid

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Flammability (solid, gaseous):	Not determined or not available.
Explosion limit upper:	Not determined or not available.
Explosion limit lower:	Not determined or not available.
Vapor pressure:	Not determined or not available.
Vapor density:	Not determined or not available.
Density:	Not determined or not available.
Relative density:	1.200 g/cm ³
Solubilities:	Soluble in water.
Partition coefficient (n-octanol/water):	Not determined or not available.
Auto/Self-ignition temperature:	Not determined or not available.
Decomposition temperature:	Not determined or not available.
Dynamic viscosity:	Not determined or not available.
Kinematic viscosity:	Not determined or 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.

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:

Incompatible materials. exposure to moist air or water. Temperatures above 200C. excess heat.

Incompatible materials:

Strong oxidizing agents. Reducing agents. Bases. metals. Nitric acid. lodides.

Hazardous decomposition products:

Carbon oxides.

SECTION 11: Toxicological information

Acute toxicity

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

Product data: No data available.

Substance data: No data available.

Skin corrosion/irritation

Assessment: Causes skin irritation

Product data: No data available.

Substance data:

Name	Result
Lactic Acid	Causes skin irritation

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 12.13.2017

Lactic Acid

Assessment: Causes serious eye damage

Product data: No data available.

Substance data:

Name	Result
Lactic Acid	Causes serious eye damage

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.

Specific target organ toxicity (single exposure)

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

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.

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 12.13.2017

Lactic Acid

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

Canadian Transportation of Dangerous Goods (TDG)

UN number	UN3265
UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S
UN transport hazard class(es)	8
Packing group	III
Environmental hazards	None
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number	UN3265
UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S
UN transport hazard class(es)	8
Packing group	111
Environmental hazards	None
Special precautions for user	None

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

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 12.13.2017

Lactic Acid

UN number	UN3265
UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S
UN transport hazard class(es)	8
Packing group	
Environmental hazards	None
Special precautions for user	None

SECTION 15: Regulatory information

Canada regulations

Domestic substances list (DSL):

50-21-5	Lactic Acid	Listed
7732-18-5	Water, purified	Listed

Non-domestic substances list (NDSL): Not determined.

SECTION 16: Other information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with the Canadian Hazardous Products Regulations and WHMIS 2015. 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: 3-0-0

HMIS: 3-0-0-X

Initial preparation date: 12.13.2017

End of Safety Data Sheet