# **INNOVATING SCIENCE**

"Cutting edge science for the classroom"

221 Rochester Street Avon, NY 14414-9409 (585) 226-6177 CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300 For laboratory and industrial use only. Not for drug, food or household use.

Product CALCIUM CARBONATE

Synonyms | Precipated Chalk / Natural Chalk / Powdered Chalk

Section 2 Hazards identification

Signal word: WARNING Pictograms: GHS08 Target organs: None known



GHS Classification: \*STOT-RE (Category 2)

### GHS Label information: Hazard statement:

\*H373: May cause damage to organs (*lungs*) through prolonged or repeated exposure (*inhalation*).

\* Respirable dust particles containing crystalline silica may be generated by crushing. There are no known hazards associated with this material when used as recommended.

### Precautionary statement:

P260: Do not breathe dust.

P314: Get medical advice/attention if you feel unwell.

P501: Dispose of contents/container to a licensed chemical disposal agency in

accordance with local/regional/national regulations.

### Hazards not otherwise classified:

Health hazards not otherwise classified (HHNOC) - Not Known Physical hazards not otherwise classified (PHNOC) - Not Known

Section 3 Composition / information on ingredients							
Chemical Name	CAS#	%	EINECS				
Ground Limestone (Calcium carbonate)	1317-65-3	>99.5%	215-279-6				
Water	7732-18-5	< 0.5%	231-791-2				
May contain: Quartz	14808-60-7	0.1-1.0%	238-878-4				

# Section 4 First aid measures

**INGESTION:** Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: PROLONGED INHALATION OF PARTICULATE DUST MAY BE HARMFUL. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**EYE CONTACT:** MAY CAUSE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: MAY CAUSE ABRASIONS. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

### Section 5 Fire fighting measures

Suitable Extinguishing Media: Product will not burn or support fire. Use any media suitable for extinguishing supporting fire

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: Limestone reacts with acids to release carbon dioxide.

# Section 6 Accidental release measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Page E2 of E2 Section 7 Handling and storage

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area.

Section 8	Exposure controls / personal protection						
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)			
Exposure Limits:	Particles not otherwise classified	TWA: 5 mg/m <sup>3</sup> respirable fraction	None established	None established			

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHAapproved respirator.

#### Section 9 Physical and chemical properties

Appearance: Solid. White powder.

Odor: No odor.

Odor threshold: Data not available

pH: Data not available

Melting / Freezing point: Data not available

Boiling point: Data not available Flash point: Not flammable

Evaporation rate ( = 1): Not applicable Flammability (solid/gas): Data not available. Explosion limits: Lower / Upper: Not flammable Vapor pressure (mm Hg): Data not available Vapor density (Air = 1): Data not available

Relative density (Specific gravity): 2.71 Solubility(ies): 0.001% @ 0°C in water.

Partition coefficient: Not applicable Auto-ignition temperature: Not applicable Decomposition temperature: 825°C (1517°F)

Viscosity: Data not available. Molecular formula: CaCO<sub>3</sub> Molecular weight: 100.09

#### Section 10 Stability and reactivity

Chemical stability: Stable Hazardous polymerization: Will not occur.

Conditions to avoid: Avoid contact with acids.

Incompatible materials: Calcium carbonate ignites on contact with fluorine. It is incompatible with acids, alum, ammonium salts, and mercury/hydrogen mixtures.

Hazardous decomposition products: Carbon dioxide.

#### Section 11 Toxicological information

Acute toxicity: Data not available

Skin corrosion/irritation: Data not available Serious eye damage/irritation: Data not available Respiratory or skin sensitization: Data not available

Germ cell mutagenicity: Data not available

Carcinogenity: Data not available

NTP: Known to be a human carcinogen (respirable). [crystalline silica]\* IARC classified: Group 1: Carcinogenic to humans. [crystalline silica]

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. Ca Prop 65: A WARNING! This product can expose you to a chemical, crystalline silica, which is known to the State of California to cause cancer.

Reproductive toxicity: Data not available STOT-single exposure: Data not available

STOT-repeated exposure: Inhalation - May cause damage to organs through prolonged or repeated exposure. [crystalline silica]\*

Aspiration hazard: Data not available

Potential health effects:

Inhalation: Dust may cause congestion and irritation in nasal and respiratory passages.

Ingestion: Ingestion may cause gastrointestinal irritation and blockage.

Skin: May cause abrasions.

Eyes: May cause mild to severe irritation by abrasion with dust or chips.

Signs and symptoms of exposure: Prolonged inhalation of particulate dust, may result in silicosis, a disabling pulmonary fibrosis characterized by fibrotic changes and miliary nodules in the lungs, a dry cough, shortness of breath, emphysema, decreased chest expansion, and increased susceptibility to tuberculosis.

Additional information: RTECS #: FF9335000

\* Respirable dust particles containing crystalline silica may be generated by crushing. There are no known hazards associated with this material when used as recommended.

#### Section 12 **Ecological information**

Toxicity to fish: No data available

Toxicity to daphnia and other aquatic invertebrates: No data available

Toxicity to algae: No data available

Persistence and degradability: No data available Bioaccumulative potential: No data available Mobility in soil: No data available PBT and vPvB assessment: No data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

### Disposal considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

#### Section 14 Transport information

UN/NA number: Not applicable Shipping name: Not Regulated Hazard class: Not applicable

Packing group: Not applicable Reportable Quantity: No Marine pollutant: No

**Exceptions:** Not applicable 2020 ERG Guide # Not applicable

#### Section 15 Regulatory information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65
Calcium carbonate	Listed	Not listed	Not listed	Not listed	Listed	▲ WARNING -Cancer - www.P65Warnings.ca.gov.

#### Section 16 Other information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook

Revision Date: August 16, 2022 Supercedes: September 21, 2020 Form 06/2015

# INNOVATING SCIENCE

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Product GLYCERIN
Synonyms Glycerol

Section 2 Hazards identification

This substance or mixture has not been classified as hazardous according to the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals.

Signal word: None required Pictograms: No symbol required Target organs: None known

GHS Classification: None required

GHS Label information: Hazard statement: None required

Precautionary statement: None required

### Supplemental information:

Do not breathe mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands thoroughly after handling. Get medical attention if you feel unwell.

### Hazards not otherwise classified:

Health hazards not otherwise classified (HHNOC) - Not Known Physical hazards not otherwise classified (PHNOC) - Not Known

Section 3 Composition / information on ingredients							
Chemical Name	CAS#	%	EINECS				
Glycerin	56-81-5	100%	200-289-5				

# Section 4 First aid measures

**INGESTION:** Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**EYE CONTACT:** Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

### Section 5 Fire fighting measures

Suitable Extinguishing Media: DO NOT USE WATER. Carbon dioxide, dry chemical, dry sand, alcohol foam.

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

# Section 6 Accidental release measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Remove all sources of ignition. Absorb with inert dry material, sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Section 7 Handling and storage Page E2 of E2

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale vapors, spray or mist. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, well-ventilated area away from incompatible substances. Keep away from ignition sources.

Section 8	Exposure controls / personal protection						
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)			
Exposure Limits:	Glycerin	TWA: 10 mg/m <sup>3</sup> (mist)	TWA: 5 mg/m <sup>3</sup> (respirable fraction)	None established			

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If misty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

# Section 9 Physical and chemical properties

**Appearance:** Clear, colorless liquid. **Odor:** No odor.

Odor threshold: Data not available.

pH: Approximately 7.0

Melting / Freezing point: 18°C (64°F) Boiling point: 290°C (554°F)

**Flash point:** 177°C (351°F) COC

Evaporation rate ( Ether = 1): >1
Flammability (solid/gas): Data not available.

Explosion limits: Lower / Upper: Data not available Vapor pressure (mm Hg): 0.01 mbar @ 20°C Vapor density (Air = 1): Data not available

Relative density (Specific gravity): 1.2607 (25/25°C)

Solubility(ies): Complete

Partition coefficient: 2.6 calculated Auto-ignition temperature: 400°C (752°F) Decomposition temperature: Data not available.

Viscosity: Data not available.

Molecular formula: HOCH2CHOHCH2OH

Molecular weight: 92.10

### Section 10 Stability and reactivity

Chemical stability: Stable Hazardous polymerization: Will not occur.

Conditions to avoid: Excessive temperatures and heat. Absorbs moisture from the air.

Incompatible materials: Strong oxidizers

Hazardous decomposition products: Poisonous Acrolein fumes.

## Section 11 Toxicological information

Acute toxicity: Oral-rat LD50: 25,000 mg/kg

Skin corrosion/irritation: Dermal-rabbit - 18,700 mg/kg Serious eye damage/irritation: Rabbit - practically non-irritating

Respiratory or skin sensitization: Data not available

Germ cell mutagenicity: Data not available

Carcinogenity: Data not available

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

Reproductive toxicity: Data not available STOT-single exposure: Data not available STOT-repeated exposure: Data not available Aspiration hazard: Data not available

Potential health effects:

Inhalation: Inhalation of mist are irritating to the respiratory tract. Ingestion: Ingestion is considered to be a very low hazard.

Skin: Skin contact shows no significant irritation. Not absorbed through the skin.

Eyes: May cause slight eye irritation.

 $\textbf{Signs and symptoms of exposure:} \ \ \textbf{See Potential health effects above}.$ 

Additional information: RTECS #: MA8050000
Section 12 Ecological information

Toxicity to fish: Low toxicity to aquatic organisms. LC50 (96 hour) fish >5,000 mg/l

Toxicity to daphnia and other aquatic invertebrates: EC50 (24 hour) Daphnia magna >10,000 mg/l

Toxicity to algae: No data available

Persistence and degradability: No data available

Mobility in soil: No data available

PBT and vPvB assessment: No data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

## Section 13 Disposal considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

# Section 14 Transport information

UN/NA number:Not applicableShipping name:Not RegulatedHazard class:Not applicablePacking group:Not applicable

Exceptions: Not applicable 2020 ERG Guide # Not applicable

king group: Not applicable Reportable Quantity: No Marine pollutant: No PRG Guide # Not applicable

# Section 15 Regulatory information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list

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Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65
Glycerin	Listed	Not listed	Not listed	Listed	Not listed	This product does not contain any chemicals known to the State of California to cause cancer or
						reproductive toxicity

# Section 16 Other information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

Form 06/2015 Revision Date: October 17, 2022 Supercedes: October 1, 2020

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Product GUM ARABIC

Synonyms Acacia Gum / Acacia

Section 2 Hazards identification

Signal word: DANGER
Pictograms: GHS08
Target organs: None known



**GHS Classification:** 

Respiratory sensitization (Category 1B)

GHS Label information: Hazard statement:

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

### Precautionary statement:

P261: Avoid breathing dust.

P284: In case of inadequate ventilation wear respiratory protection.

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for

breathing.

P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER or

doctor.

P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

### Hazards not otherwise classified:

Health hazards not otherwise classified (HHNOC) - Not Known Physical hazards not otherwise classified (PHNOC) - Not Known

Section 3 Compo	sition / information on ingredients			
Chemical Name	CAS#	%	EINECS	
Gum arabic	9001-01-5	100%	232-519-5	

# Section 4 First aid measures

**INGESTION:** Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

**INHALATION:** MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING DIFFICULTIES IF INHALED. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention

SKIN ABSORPTION: Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

### Section 5 Fire fighting measures

Suitable Extinguishing Media: Use extinguishing agent suitable for type of surrounding fire.

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

# Section 6 Accidental release measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Recover for reuse if not contaminated. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Section 7 Handling and storage Page E2 of E2

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from ignition sources.

Section 8	Exposure controls / personal protection						
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)			
Exposure Limits:	Gum arabic	Not established	Not established	Not established			

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

## Section 9 Physical and chemical properties

Appearance: Solid. Off-white powder

Odor: No odor

Odor threshold: Data not available

pH: Data not available

Melting / Freezing point: Data not available Boiling point: Data not available

Flash point: Data not available

Evaporation rate ( = 1): Data not available Flammability (solid/gas): Data not available Explosion limits: Lower / Upper: Data not available Vapor pressure (mm Hg): Data not available

Vapor density (Air = 1): Data not available Relative density (Specific gravity): 1.35-1.49 Solubility(ies): Soluble in water Partition coefficient: Data not available
Auto-ignition temperature: Data not available
Decomposition temperature: Data not available

Viscosity: Data not available

Molecular formula: Data not available Molecular weight: Data not available

### Section 10 Stability and reactivity

Chemical stability: Stable Hazardous polymerization: Will not occur.

Conditions to avoid: Excessive temperatures and other sources of ignition.

Incompatible materials: Strong oxidizers

Hazardous decomposition products: Carbon oxides.

## Section 11 Toxicological information

Acute toxicity: Oral-rat LD50: >16 g/kg Skin corrosion/irritation: Data not available Serious eye damage/irritation: Data not available Respiratory or skin sensitization: Data not available

Germ cell mutagenicity: Data not available

Carcinogenity: Data not available

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

Reproductive toxicity: Data not available STOT-single exposure: Data not available STOT-repeated exposure: Data not available Application bearest. Data port excitely persons.

Aspiration hazard: Data not available

Potential health effects:

Inhalation: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Ingestion: May be harmful if swallowed.

Skin: Contact with skin may cause irritation, defatting on prolonged contact.

Eyes: Contact with eyes may cause irritation.

Signs and symptoms of exposure: To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated. Specific data is

not available. Exercise appropriate procedures to minimize potential hazards.

Additional information: RTECS #: CE5945000

# Section 12 Ecological information

Toxicity to fish: No data available

Toxicity to daphnia and other aquatic invertebrates: No data available

Toxicity to algae: No data available

**Exceptions:** Not applicable

Persistence and degradability: No data available

Mobility in soil: No data available

PBT and vPvB assessment: No data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

## Section 13 Disposal considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

# Section 14 Transport information

UN/NA number: Not applicable
Hazard class: Not applicable
Packing group: Not applicable

2020 ERG Guide # Not applicable

Reportable Quantity: No Marine pollutant: No

## Section 15 Regulatory information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65
Gum arabic	Listed	Not listed	Not listed	Listed	Not listed	This product does not contain any chemicals known to the State of California to cause cancer or

# Section 16 Other information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

Form 06/2015 Revision Date: October 17, 2022 Supercedes: October 1, 2020

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221 Rochester Street Avon, NY 14414-940 (585) 226-6177 CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300 For laboratory and industrial use only. Not for drug, food or household use.

Product HYDROCHLORIC ACID, 1 MOLAR (1 NORMAL) SOLUTION

Synonyms Muriatic Acid, Water Solution / Hydrogen Chloride, Water Solution

Section 2 Hazards identification

Signal word: WARNING Pictograms: GHS05

Target organs: Respiratory system, skin, eyes, lungs.



**GHS Classification:** 

Corrosive to metals (Category 1) Skin irritant (Category 3) Eye irritant (Category 2B)

GHS Label information: Hazard statement(s):

H290: May be corrosive to metals. H316: Causes mild skin irritation. H320: Causes eye irritation. Precautionary statement(s):

P234: Keep only in original container.

P264: Wash hands thoroughly after handling.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for 15 minutes.

Remove contact lenses, if present and easy to do. Continue rinsing. P332+P313: If skin irritation occurs: Get medical attention.

P332+P313: If skin irritation occurs: Get medical attention. P337+P313: If eye irritation persists: Get medical attention.

P390: Absorb spillage to prevent material damage. P406: Store in corrosive resistant container with a resistant inner liner.

#### Hazards not otherwise classified:

Health hazards not otherwise classified (HHNOC) - Not Known Physical hazards not otherwise classified (PHNOC) - Not Known

Section 3 Composition /	information on ingredients			
Chemical Name	CAS#	%	EINECS	
Water Hydrochloric acid	7732-18-5 7647-01-0	96.86% 3.14%	231-791-2 231-595-7	

# Section 4 First aid measures

**INGESTION:** MAY BE HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: MAY BE HARMFUL IF INHALED. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**EYE CONTACT:** MAY CAUSE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: MAY CAUSE IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

### Section 5 Fire fighting measures

Suitable Extinguishing Media: Carbon dioxide, dry chemical, dry sand, alcohol foam.

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

**Specific Hazards:** During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Contact with metals produce hydrogen, which is flammable and may produce explosive mixtures with air.

### Section 6 Accidental release measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Absorb with inert dry material, sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Page E2 of E2 Section 7 Handling and storage

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale vapors, spray or mist. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, well-ventilated area away from incompatible substances.

Section 8	Exposure controls / personal protection						
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)			
Exposure Limits:	Hydrogen chloride	STEL: C 2 ppm / C 2.98 mg/m <sup>3</sup>	STEL: C 5 ppm / C 7 mg/m <sup>3</sup>	STEL: C 5 ppm / C 7 mg/m <sup>3</sup>			

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low. Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If misty conditions prevail, work in fume hood or wear a NIOSH/MSHAapproved respirator

#### Section 9 Physical and chemical properties

Appearance: Clear, colorless liquid. Odor: No odor Odor threshold: No data available

pH: No data available Melting / Freezing point: ~ 0°C (~ 32°F) [water] Boiling point: ~ 100°C (212°F) [water]

Flash point: Not flammable.

Evaporation rate ( = 1): < 1

Flammability (solid/gas): No data available Explosion limits: Upper/Lower: No data available

Vapor pressure (mm Hg): 14 [water] Vapor density (Air = 1): 0.7 [water] Relative density (Specific gravity): 1.0 [water] Solubility(ies): Complete.

Partition coefficient: (n-octanol / water): No data available Auto-ignition temperature: No datá available

Decomposition temperature: No data available

Viscosity: No data available Molecular formula: Mixture. Molecular weight: Mixture.

#### Section 10 Stability and reactivity

Chemical stability: Stable Hazardous polymerization: Will not occur.

Conditions to avoid: Containers may burst when heated. Avoid contact with water.

Incompatible materials: Metals, bases, active metals, alkali metals, oxidizing agents, hydroxides, amines, carbonates, cyanides, sulfides, sulfites,

formaldehyde

Hazardous decomposition products: Hydrogen chloride gas.

#### Section 11 **Toxicological information**

Acute toxicity: Data not available

Skin corrosion/irritation: Data not available at this dilution. Serious eye damage/irritation: Data not available at this dilution.

Respiratory or skin sensitization: Data not available

Germ cell mutagenicity: Data not available

Carcinogenity: Data not available

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by NTP.

IARC: Group 3: Not classifiable as to its carcinogenicity to humans.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

Reproductive toxicity: Data not available

STOT-single exposure: Data not available at this dilution.

STOT-repeated exposure: Data not available

Aspiration hazard: Data not available

Potential health effects: To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated. Specific data is not available. Exercise appropriate procedures to minimize potential hazards.

Inhalation: May be harmful if inhaled. Material may cause irritation to the tissue of the mucous membranes and upper respiratory tract.

Ingestion: May be harmful if swallowed. Skin: May cause irritation and/or burns. Eyes: May cause irritation and/or burns.

Signs and symptoms of exposure: Data not available at this dilution. Additional information: RTECS #: MW4025000 [Hydrochloric acid]

# **Ecological information**

Toxicity to fish: LC50 - Gambusia affinis (Mosquito fish) - 282 mg/l - 96 h (Hydrochloric acid)

Toxicity to daphnia and other aquatic invertebrates: No data available

Toxicity to algae: No data available

Persistence and degradability: No data available Bioaccumulative potential: No data available Mobility in soil: No data available PBT and vPvB assessment: No data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

#### Section 13 Disposal considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

#### Section 14 Transport information

UN/NA number: UN1789 Shipping name: Hydrochloric acid

Reportable Quantity: 5000 lbs (2270 kg) Hazard class: 8 Packing group: III Marine pollutant: No 2020 ERG Guide # 157 **Exceptions:** Limited quantity equal to or less than 5 Lt

#### Section 15 Regulatory information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65
Hydrochloric acid	Listed	5000 lbs (2270 kg)	D002	Listed		This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

#### Section 16 Other information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook

Revision Date: October 18, 2022 Supercedes: October 1, 2020 Form 06/2015

# **INNOVATING SCIENCE**

"Cutting edge science for the classroom"

221 Rochester Street Avon, NY 14414-9409 (585) 226-6177 CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300 For laboratory and industrial use only

For laboratory and industrial use only. Not for drug, food or household use.

Product SODIUM LAURYL SULFATE 95%
Synonyms Sodium Dodecyl Sulfate / SLS 95%

Section 2 Hazards identification

Signal word: DANGER
Pictograms: GHS05 / GHS07
Target organs: None Known





### **GHS Classification:**

Acute toxicity, oral (Category 4) Skin irritation (Category 2) Serious eye damage (Category 1) Aquatic toxicity, acute (Category 2) Aquatic toxicity, chronic (Category 3)

#### GHS Label information: Hazard statement:

H302: Harmful if swallowed. H315: Causes skin irritation. H318: Causes serious eye damage. H401: Toxic to aquatic life.

H412: Harmful to aquatic life with long lasting effects.

### Precautionary statement:

P264: Wash hands thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection. P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.

P302+P352: IF ON SKIN: Wash with plenty of water and soap.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310: Immediately call a POISON CENTER or doctor.

P330: Rinse mouth.

P332+P313: If skin irritation occurs: Get medical attention.

P362+P364: Take off contaminated clothing and wash it before reuse.

P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

#### Hazards not otherwise classified:

Health hazards not otherwise classified (HHNOC) - Not Known Physical hazards not otherwise classified (PHNOC) - Not Known

Section 3	Composition / information on ingredients									
Chemical Name		CAS#	%	EINECS						
Sulfuric acid, mono-C12-14-alkyl esters, sodium salts (151-21-3, Alternate CAS #)		85586-07-8	>95%	287-809-4						
Sodium sulfate		7757-82-6	<1.5%	231-820-9						
Alcohols, C10-16		67762-41-8	<1.5%	267-019-6						

# Section 4 First aid measures

**INGESTION:** HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

**INHALATION:** MAY BE HARMFUL IF INHALED. MAY CAUSE RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**EYE CONTACT:** CAUSES SERIOUS EYE DAMAGE. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: CAUSES SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

### Section 5 Fire fighting measures

 $\textbf{Suitable Extinguishing Media:} \ \, \textbf{Dry chemical, CO}_{2}, \, \textbf{water spray or regular foam.}$ 

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Do not use heavy stream of water. Use of heavy stream of water may spread the fire.

## Section 6 Accidental release measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways. Avoid release into the environment.

Containment and Cleanup: Recover for reuse if not contaminated. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Page E2 of E2 Section 7 Handling and storage

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from ignition sources and direct sunlight.

Section 8	Exposure controls / personal protection							
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)				
	Particles not otherwise classified	Not established	TWA: 15 mg/m <sup>3</sup> total dust	Not established				

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHAapproved respirator.

#### Section 9 Physical and chemical properties

Appearance: Solid. Off-white needles

Odor: Slight fatty odor

Odor threshold: Data not available

**pH:** 7.5-10.5

Melting / Freezing point: Data not available

Boiling point: 187°C (368.6°F) Flash point: 206.5°C (403.7°F) Evaporation rate ( = 1): Data not available Flammability (solid/gas): Not applicable

Explosion limits: Lower / Upper: Data not available Vapor pressure (mm Hg): Data not available Vapor density (Air = 1): Data not available Relative density (Specific gravity): 400-600g/l @20°C

Solubility(ies): <30 g/l at 20°C

Partition coefficient: (n-octanol / water): Log K<sub>ow</sub>:- 2.42 at 20°C

Auto-ignition temperature: >302°C (575.6°F) Decomposition temperature: Data not available

Viscosity: Data not available Molecular formula: Mixture Molecular weight: Mixture

#### Section 10 Stability and reactivity

Chemical stability: Stable Hazardous polymerization: Will not occur. Conditions to avoid: Direct sunlight, extremely high or low temperatures, and incompatible materials.

Incompatible materials: Strong acids, strong bases, and strong oxidizers. Hazardous decomposition products: Carbon oxides and sulfur oxides

#### Section 11 **Toxicological information**

Acute toxicity: ATE-Oral 526.316 mg/kg body weight Sodium Lauryl Sulfate [85586-07-8, 7757-82-6, 67762-41-8], LD Oral Rat >1000mg/ kg Sulfuric acid, mono-C12-14-alkyl

esters, sodium salts [85586-07-8], LD50 Oral Rat >10000 mg/kg Sodium sulfate [7757-82-6], LD50 Oral Rat >10000mg/ kg Alcohols C10-16 [67762-41-8]

Skin corrosion/irritation: Causes skin irritation

Serious eye damage/irritation: Causes serious eye damage. Respiratory or skin sensitization: Data not available

Germ cell mutagenicity: Data not available

Carcinogenity: Data not available

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

Reproductive toxicity: Data not available

STOT-single exposure: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory effects.

STOT-repeated exposure: Data not available

Aspiration hazard: Data not available

Potential health effects:

Inhalation: Prolonged exposure may cause irritation

Ingestion: Harmful if swallowed causes adverse health effects or death in significant amounts.

Skin: Contact with skin causes redness, irritation, pain, swelling, itching, burning, dryness, and dermatitis.

Eyes: Contact with eyes causes permanent damage to the cornea, iris, or conjunctiva.

Signs and symptoms of exposure: To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated. Specific data is not available. Exercise appropriate procedures to minimize potential hazards.

Additional information: RTECS #: Data not available

#### Section 12 **Ecological information**

Toxicity to fish: LC50: Pimephales promelas - 2.5 mg/L-96 hours Sodium Lauryl Sulfate [85586-07-8, 7757-82-6, 67762-41-8], LC50: Pimephales promelas -13500-14500 g/L-96

hours Sodium sulfate [7757-82-6]

Toxicity to daphnia and other aquatic invertebrates: LC50: Daphnia magna - 2.8 mg/L-48 hours Sodium Lauryl Sulfate [85586-07-8, 7757-82-6, 67762-41-8], LC50: Daphnia

magna - 2564 mg/L-48 hours Sodium sulfate [7757-82-6]

Toxicity to algae: Data not avaliable Persistence and degradability: No data available

Bioaccumulative potential: BCF fish 2.1-11 Sulfuric acid, mono-C12-14-alkyl esters, sodium salts [85586-07-8]

Mobility in soil: No data available
Other adverse effects: Toxic to aquatic life PBT and vPvB assessment: No data available

# Disposal considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

#### Section 14 Transport information

UN/NA number: Not applicable Shipping name: Not Regulated

Hazard class: Not applicable Packing group: Not applicable Reportable Quantity: No Marine pollutant: No

2020 ERG Guide # Not applicable Exceptions: Not applicable

#### Section 15 Regulatory information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65
Sodium lauryl sulfate 95% Needles	Listed	Not listed	Not listed	Listed	Not listed	This product does not contain
(85586-07-8, 7757-82-6, 67762-41-8)						any chemicals known to the State
Sodium sulfate	Listed	Not listed	Not listed	Listed	Not listed	of California to cause cancer or
Alcohols, C10-16	Listed	Not listed	Not listed	Listed	Not listed	reproductive toxicity.

#### Section 16 Other information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook

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