ESSENTIAL CHEMISTRY. INNOVATIVE SOLUTIONS.

SAFETY DATA SHEET

Print Date: August 16, 2023

Section 1: Product & Company Information

Product Identifier: **Acetic Acid 56%**

Other Means of Identification
Product Number: No data available.

Recommended Use and Restrictions on Use
Recommended Use: Solvent
Restrictions on Use: No data available.

Manufacturer / Importer / Supplier / Distributor Information

Company Name: CORECHEM Inc.
Address: 4320 Greenway Drive
Knoxville, TN 37918
USA

Information Telephone Number: 1-865-524-4239
Fax Number: 1-865-524-3375
Website: www.corecheminc.com
Contact Person: Regulatory Manager
E-mail: regulatory@corecheminc.com

Emergency Phone Number: Chemtrec® 1-800-424-9300 / Outside USA 1-703-527-3887 *(monitored 24 hours/day)*

Section 2: Hazards Identification

GHS Hazard Classification(s)
In accordance with OSHA Hazard Communication Standard 29 CFR 1910.1200 (HazCom 2012).

Physical Hazard(s)
Flammable, Liquids - 3

Health Hazard(s)
Corrosion/Irritation, Skin – 1B

Environmental Hazard(s)
Not classified.

Label Elements

Signal Word
DANGER

Hazard Symbol(s)


Hazard Statement(s)
H226: Flammable liquid and vapor
H314: Causes severe skin burns and eye damage.

Precautionary Statements

General
Not applicable.

Prevention
P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 Keep container tightly closed
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260: Do not breathe dust/fume/gas/mist/vapors/spray.

P264: Wash face, hands and any exposed skin thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301 + P330 + P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a POISON CENTER or doctor/physician.
P362 Take off contaminated clothing and wash before reuse.
P370 + P378: In case of fire: Use suitable extinguishing media for extinction.

Storage

P403 + P235: Store in a well-ventilated place. Keep cool.
P405: Store locked up.

Disposal

P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC)

None known.

Section 3: Composition/Information on Ingredients

Mixture

Chemical Identity [2]	Common Name/Synonym(s)	CAS # [3]	Weight %	Impurity or Stabilizing Additive
Acetic Acid	Ethanoic acid; Methanecarborylic acid; Ethylic acid	64-19-7	50 - 80%	No

1. Information regarding the composition and the percentage ranges of the mixtures ingredients are not presented as it Confidential Business Information (CBI). Where a medical emergency exists (as determined by medical professional), timely disclosure of CBI is assured. The information omitted pertains to only the names of the substances and the concentration in the mixture (product) and can only be requested by a doctor/physician or Local/State/Provincial or Federal Authority.
2. Non-hazardous ingredients are not presented as to protect the proprietary formula of the product.
3. "— "Indicates ingredient is a mixture and contains multiple ingredients or may have no identifying CAS number.

Section 4: First-Aid Measures

General Information

Move out of dangerous area. Get medical attention immediately. Take proper precautions to ensure your own health and safety before attempting ¡rescue and providing first aid. For specific information refer to the Emergency Overview in Section 2 of this SDS. Show this material safety data sheet to the doctor in attendance.

Inhalation

If breathing is difficult or irregular, administer oxygen; if respiratory arrest occurs, start artificial respiration by trained personnel. Do not use mouth-to-mouth method if victim inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical devices. If unconscious, maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Seek immediate medical attention.

Skin Contact

Flush skin with large amounts of water while removing contaminated clothing and continue rinsing for at least I5 minutes. Wash contaminated clothing thoroughly before reuse. Discard contaminated shoes. Seek immediate medical attention for chemical burns.

Eye Contact

Immediately flush your eyes with large amounts of water or saline solution for at least 15 minutes, occasionally lifting the upper and lower lids. Remove contact lenses, if present and easy to do, after the first 2 minutes and continue rinsing. Seek immediate medical attention, preferably from an ophthalmologist.

Ingestion

Rinse mouth with water if the victim is conscious. Remove dentures if present. Give 2 glasses of water or milk to drink if the victim is conscious, alert and able to swallow. DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious or convulsing person. Do not leave the victim unattended. Seek immediate medical attention.

Most important symptoms/effects, acute and delayed

Symptoms

May cause burns of the mouth, throat, esophagus and stomach- Signs and symptoms may include pain, nausea, vomiting, diarrhea, dizziness, drowsiness, faintness, weakness, collapse and coma.

Indication of immediate medical attention and special treatment needed

Hazards

Corrosive can cause severe burns to mucus membranes, gastrointestinal mucosa, skin and eyes. Bronchopneumonia, pulmonary edema, and reactive airway, dysfunction syndrome (RADS) may follow acute inhalation overexposure or aspiration.

Treatment

Treat symptomatically.

Section 5: Fire-Fighting Measures

General Fire Hazards

No data available.

Suitable (and Unsuitable) Extinguishing Media

Suitable Extinguishing Media

Use water fog or spray, dry chemical, carbon dioxide or foam.

Unsuitable Extinguishing Media

None known.

Specific Hazards Arising from the Chemical

Combustible liquids.

Special Protective Equipment and Precautions for Firefighters

Special Fire-Fighting Equipment Procedures

No data available.

Special Protective Equipment for Fire-Fighters

Wear an approved positive pressure self-contained breathing apparatus in addition to standard firefighting gear.

Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Wear appropriate personal protective equipment.

Methods and Materials for Containment and Clean-Up

Cover drains and contain spills. Carefully neutralize the spill with soda ash (sodium carbonate) or calcium carbonate. Cover spill with a large quantity of inert absorbent. Do not use combustible material such as sawdust. Collect product using non-sparking tools and place into an approved container for proper disposal. Do not use a metal container for disposal|. Observe possible material restrictions. Contaminated absorbent may pose the same hazard as the spilled product. Dispose of via a licensed waste disposal contractor.

Notification Procedures

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions

Avoid release to the environment.

Section 7: Handling and Storage

Precautions for Safe Handling

Wear all appropriate personal protective equipment specified in Section 8.2. Do not get in eyes or on skin or clothing. Do not inhale mist or vapor. NO SMOKING. If normal use of material presents a respiratory hazard, use only adequate ventilation or wear an appropriate respirator. Wash contaminated clothing before reuse. Discard contaminated shoes.

Conditions for Safe Storage, including any Incompatibilities

Keep container tightly closed and in a well-ventilated place.

Section 8: Exposure Controls/Personal Protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Value	Source
Acetic Acid (CAS # 64-19-7)	TWA	10 ppm	US. ACGIH Threshold Limit Values
Acetic Acid (CAS # 64-19-7)	STEL	15 ppm	US. ACGIH Threshold Limit Values
Acetic Acid (CAS # 64-19-7)	TWA	10 ppm 25 mg/m3	US OSHA Table Z-1

Biological Limit Values

The product does not contain any relevant quantities of hazardous materials with assigned biological limit values.

Appropriate Engineering Controls

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. Use adequate ventilation. Local exhaust is preferable. Material should be used under a hood in the laboratory

Individual protection measures, such as personal protective equipment (PPE)

General Information

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Eye/Face Protection

Wear safety glasses with side shields (or goggles) and a face shield. Wear a full-face respirator, if needed.

Skin Protection

Hand Protection

Wear appropriate chemical resistant gloves.

Other

Wear appropriate chemical resistant clothing.

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.

Hygiene Measures

Facilities storing or using this material should be equipped with an eyewash station and safety shower. Change contaminated clothing. Preventive skin protection is recommended. Wash hands thoroughly after use, before eating, drinking, smoking or using the lavatory.

Section 9: Physical and Chemical Properties

Appearance:	
Physical State:	Liquid
Color:	Colorless/clear
Odor:	Pungent/vinegar like
Odor Threshold:	0.074 ppm
pH:	2.4, Concentration: 60 g/l
Melting Point/Freezing Point:	16.64 °C
Initial Boiling Point and Boiling Range:	103-117 .9 °C (217-244.2 °F)
Flash Point:	102"F (39'C) at 1,013 hPa (760 mm Hg)
Evaporation Rate (butyl acetate=1)**:**	No data available.
Flammability (solid, gas):	Not applicable
Upper/Lower Limit on Flammability or Explosive Limits	
Flammability Limit – Upper:	No data available.
Flammability Limit – Lower:	No data available.
Explosive Limit – Upper:	19.9 %(V)
Explosive Limit – Lower:	4 %(V)
Vapor Pressure:	15.6-20.79 hPa (25 °C)
Vapor Density (air =1)**:**	2.1
Relative Density (water=1)**:**	1.0446 (25 °C)
Solubility(ies):	
Solubility in water:	completely soluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	log Pow: -0.17
Auto-Ignition Temperature:	865'F (463 "C) at 1,013 hPa (760 mm Hg)
Decomposition Temperature:	No data Available
Viscosity, dynamic	No data available
Viscosity, kinematic	1.011 mm2/s

Other Information:

Molecular Weight:	60.05 g/mol
Formula:	$C_2H_4O_2$ (acetic acid)

Section 10: Stability and Reactivity

Reactivity

This material is stable under normal handling conditions and use.

Chemical Stability

Stable under recommended storage conditions

Possibility of Hazardous Reactions

Generates hydrogen gas on contact with metals. Hazardous polymerization will not occur.

Conditions to Avoid

Heat, sources of ignition, temperature extremes, contact with incompatible materials, contact with metals

Incompatible Materials

Strong oxidizing agents, strong alkalis, strong bases, metals, amines, halogens, alcohols, peroxides, metal salts, alcohols, acetaldehyde, potassium permanganate, carbonates, nonmetallic halides, various plastics, rubbers and coatings

Hazardous Decomposition Products

Thermal decomposition products include oxides of carbon, hydrogen gas and irritating and toxic fumes.

Section 11: Toxicological Information

Information on routes of exposure

Ingestion: May cause burns of the mouth, throat, esophagus and stomach. Signs and symptoms may include pain, nausea, vomiting, diarrhea, dizziness, drowsiness, faintness, weakness, collapse and coma.

Inhalation: Exposure to vapor may cause irritation of the eyes, nose, and respiratory tract. inhalation may Cause asthma like symptoms, including coughing, wheezing, tightness of chest, shortness of breath, and headache.

Skin Contact: Causes severe skin burns.

Eye Contact: Causes serious eye damage.

Information on Toxicological Effects

Acute Toxicity (List all possible routes of exposure)

Oral

Acetic Acid: LD50 (Rat): 3,320 mg/kg

Dermal

Acetic Acid: LD50 (Rabbit): 1,060 mg/kg

Inhalation

Acetic Acid: LC50 (Rat, 4 h): > 16,000 ppm

Repeated Dose Toxicity

No data available

Skin Corrosion/Irritation

Causes serious skin bums and severe skin irritation.

Serious Eye Damage/Eye Irritation

Causes bums and serious eye damage. Risk of blindness!

Respiratory/Skin Sensitization

Exposure to vapors of this material can lead to cough, dyspnea, and asthma like symptoms.

Carcinogenicity

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

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.

US. National Toxicology Program (NTP) Report on Carcinogens

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.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

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.

Germ Cell Mutagenicity

In Vitro

No mutagenic components identified.

In Vivo

No mutagenic components identified.

Reproductive Toxicity

None known.

Specific Target Organ Toxicity – Single Exposure

None known.

Specific Target Organ Toxicity – Repeated Exposure

None known.

Aspiration Hazard

Not classified.

Other Effects

None known.

Section 12: Ecological Information

Ecotoxicity

Acute Hazards to the Aquatic Environment

Fish

Acetic Acid: LC50 Pimephales promelas (Fathead minnow), static, 96 h: 300.82 mg/l
Acetic Acid:LC50 - Oncorhynchus mykiss (rainbow trout), semi-static 96 h: > 300.8 mg/l

Aquatic Invertebrates

Acetic Acid: LC50 (Daphnid, 48 h): > 300.82 mg/l

Toxicity to Aquatic Plants

Acetic Acid: IC50Scenedesmus quadricauda (Green algae), 16 h: 4,000 mg/l

Chronic Hazards to the Aquatic Environment

Fish

No data available.

Aquatic Invertebrates

No data available.

Toxicity to Aquatic Plants

No Data Available

Persistence and Degradability

Biodegradation

Readily Biodegradable

BOD/COD Ratio

No data available.

Bioaccumulative Potential

Bioconcentration Factor (BCF)

3.16

Partition Coefficient n-octanol / water (log Kow)

No data available.

Mobility in Soil

High mobility in soil.

Other Adverse Effects

No data available.

Section 13: Disposal Considerations

Disposal Instructions

Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemicals or used containers. Contaminated products, soil, water, container residues and spill cleanup materials may be hazardous wastes. Contaminated products, soil or water should be considered dangerous due to potential evolution of flammable vapor. Comply with applicable local, state or international regulations concerning solid or hazardous waste disposal and/or container disposal. Proper grounding procedures to avoid static electricity should be followed. Decontaminate containers thoroughly before reuse/disposal.

Contaminated Packaging

Dispose of contents/ container to an approved incineration plant.

Section 14: Transportation Information

US Department of Transportation (DOT)

UN Number:	UN2790
UN Proper Shipping Name:	Acetic Acid Solution
Technical Name:	-
Hazard Class:	8
Subsidiary Hazard Risk:	-
Packing Group:	II
DOT Label/Placard Exemptions:	Not determined
Special Provisions:	148, A3, A7, A10, B2, IB2, T7, TP2
Packaging Exceptions:	49CFR 173.154

Packaging Non-Bulk: 49CFR 173.202
Packaging Bulk: 49CFR 173.242
Reportable Quantity (RQ): 5,000lb (2,270kg)
Marine Pollutant: No
Poison Inhalation Hazard: No
Special precautions for user: Transport within the user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
Emergency Response Guidebook (ERG) #: 153

Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.

Section 15: Regulatory Information

US Federal Regulations

Toxic Substance Control Act (TSCA), Chemical Substance Inventory, Section 8(b)

This product or ingredient(s) are listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substance List (40 CFR 302.4)

The following chemical(s) in this material are subject to reporting levels established by CERCLA:
Acetic Acid (CAS# 64-19-7)

Clean Air Act (CAA), Section 112(r)

No chemical(s) in this material are subject to the reporting requirements of CAA.

Emergency Planning and Community Right-To-Know Act (EPCRA)

EPCRA 302 Extremely Hazardous Substance

No chemical(s) in this material are subject to the reporting requirements of SARA Title III, Section 302.

EPCRA 304 Emergency Response Notification

No chemical(s) in this material are subject to the reporting requirements of SARA Title III, Section 304.

EPCRA 311/312 Emergency and Hazardous Materials Reporting

Fire Hazard: Yes
Sudden Release of Pressure: No
Reactive: No
Acute (Immediate) Health Hazard: Yes
Chronic (Delayed) Health Hazard: No

EPCRA 313 Toxic Chemical Release Inventory (TRI) Reporting

This material does not contain any chemical(s) with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Important Note: Due to the changing nature of regulatory requirements, the information in this document should NOT be considered all-inclusive or authoritative. Users should make their own investigations to determine the suitability of the information for their particular purposes. International, Federal, State and Local regulations should be consulted to determine compliance with all required reporting requirements.

Section 16: Other Information

Hazardous Materials Identification System (HMIS®) Classification

Health Hazard: 3
Chronic Health Hazard: /
Flammability: 2
Physical Hazard: 0
(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

National Fire Protection Association (NFPA 704) Rating

Health Hazard: 3
Fire Hazard: 2
Reactivity Hazard: 0
Special: N/A
(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

Prepared By: Regulatory Manager
Version #: 001
Issue Date: August 11, 2015
Revision Date: July 5, 2023

Key to Abbreviations and Acronyms

ATE - Acute Toxicity Estimate
BCF - Bioconcentration Factor
EC50 - Effective concentration, 50%
IDHL – Immediately Dangerous to Life and Health
Kg – Kilogram
l – Liter
lb – Pound
LC50 - Lethal Concentration, 50%
LD50 - Lethal Dose, 50%
mg - milligram
ml – milliliter
N/A – Not Applicable
N/D – Not Determined
PEL – Permissible Exposure Limit
REL – Recommended Exposure Limit
STEL – Short-term Exposure Limit
TWA - Time weighted average

ACGIH - American Conference of Industrial Hygienists
AIHA – American Industrial Hygiene Association
BEI - Biological Exposure Indices
CAS – Chemical Abstracts Service
DOT – US Department of Transportation
EPA – US Environmental Protection Agency
GHS - Globally Harmonized System of Classification and Labelling of Chemicals
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association
IBC - Intermediate Bulk Container
IMDG - International Maritime Dangerous Goods
NIOSH – National Institute for Occupational Safety and Health
NTP – National Toxicology Program
OSHA – US Occupational Health and Safety Administration
SARA – US EPA Superfund Amendments and Reauthorization Act
TSCA – US EPA Toxic Substances Control Act
UN - United Nations

References

HSDB® - Hazardous Substances Data Bank

Disclaimer

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