



Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation Acetic Acid: Chloroform, 3:2

Product Number 160

Other Identifying Product Numbers 160-1

1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

1.3. Details of the Supplier of the Safety Data Sheet

Company Ricca Chemical Company

Address 412 West Fork Drive

Arlington, TX 76012 USA

Telephone 888-467-4222

1.4. Emergency Telephone Number (24 hours)

CHEMTREC (USA) 800-424-9300

CHEMTREC (International) 1+ 703-527-3887

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SECTION 2: Hazard(s) Identification

2.1. Classification of the Substance or Mixture

Hazard Class	Category	Hazard Statements	Precautionary Statements
Acute Toxicity - Oral	Category 4	H302	P264,P270,P301+P312,P330,P501
Acute Toxicity - Inhalation (Vapors)	Category 3	H331	P261,P271,P304+P340,P311, P321,P403+P233,P405,P501
Corrosive to the Respiratory Tract	Corrosive		
Flammable Liquids	Category 3	H226	P210,P233,P240,P241,P242,P243, P280,P303+P361+P353,P370+P378, P403+P235,P501
Skin Corrosion / Irritation	Category 1	H314	P260,P264,P280,P301+P330+P331, P303+P361+P353,P363,P304+P340, P310,P321,P305+P351+P338,P405, P501
Serious Eye Damage / Eye Irritation	Category 1	H318	P280,P305+P351+P338,P310
Carcinogenicity	Category 2	H351	P201,P202,P280,P308+P313,P405, P501
Reproductive Toxicity	Category 2	H361	P201,P202,P280,P308+P313,P405, P501
Specific Target Organ Toxicity - Repeated Exposure	Category 1	H372	P260,P264,P270,P314,P501

2.2. GHS Label Elements

Pictograms:



Signal Word: Danger

Hazard Statements:

NOTE: Hazard statements may be combined on labels to improve clarity and readability.



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Hazard Number	Hazard Statement
H226	Flammable liquid and vapor
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H331	Toxic if inhaled
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H372	Causes damage to heart, kidneys, liver through prolonged or repeated exposure
	Corrosive to the respiratory tract

Precautionary Statements:

NOTE: Precautionary statements may be combined or consolidated on labels to improve clarity and readability.

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Prevention

Precautionary Number	Precautionary Statement
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharge.
P260	Do not breathe fumes or mist.
P264	Wash hands, arms, and face thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves and eye protection.

Response

Precautionary Number	Precautionary Statement
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304+P340	IF INHALED: Remove person to fresh air and keep 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.
P308+P313	If exposed or concerned: Get medical advice or attention.
P310	Immediately call a poison center or doctor.
P330	Rinse mouth.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use dry chemical, foam, or carbon dioxide to extinguish.

Storage

Precautionary Number	Precautionary Statement
P403+P233+P235	Store in a well-ventilated place. Keep container tightly closed. Keep cool.
P405	Store locked up.

Disposal

Precautionary Number	Precautionary Statement
P501	Dispose of contents/container to suitable waste stream in accordance with local, state, federal, and international regulations.

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2.3. Hazards not Otherwise Classified

No other hazards identified.

2.4. Ingredients of Unknown Acute Toxicity

51.5 percent of this mixture consists of ingredient(s) of unknown acute dermal toxicity.

SECTION 3: Composition / Information on Ingredients

3.1. Components of Mixture

Chemical Name (IUPAC)	Common Name and Synonyms	CAS Number	Weight%
acetic acid	Acetic Acid; Ethanoic acid	64-19-7	51.48
chloroform	Chloroform; Trichloromethane	67-66-3	48.52

SECTION 4: First-Aid Measures

4.1. Description of Necessary Measures

Eye Contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Causes irritation.

Ingestion: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Dilute with water or milk. Vomiting may occur spontaneously but do not induce. Call a physician immediately.

Inhalation: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Skin Contact: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. May produce pain, redness, severe irritation or full thickness burns. May be absorbed through the skin with possible systemic effects.

4.2. Most Important Symptoms and Effects, Acute and Delayed

Toxic if inhaled DANGER! Corrosive. Toxic. May be fatal if swallowed, inhaled or absorbed through skin. Causes severe irritation to the skin, eyes and respiratory tract. Contains Chloroform, which is a suspected carcinogen. May affect central nervous system, liver, kidneys and cardiovascular system. Avoid contact with skin, eyes, or clothing. Wash areas of contact with water. If swallowed, dilute with water and call a physician immediately. Do not induce vomiting. EYE CONTACT: Causes irritation. SKIN CONTACT: May produce pain, redness, severe irritation or full thickness burns. May be absorbed through the skin with possible systemic effects. CHRONIC EFFECTS / CARCINOGENICITY: Suspected carcinogen. Prolonged or repeated exposure to vapors may cause damage to the nervous system, heart, liver and kidneys. Repeated exposure may cause chronic irritation of the skin leading possibly to dermatitis.

4.3. Immediate Medical Attention or Special Treatment Needed

Immediately call a poison center or doctor. Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Wash areas of contact with soap and water for at least 15 minutes. Call a physician if irritation develops. Dilute with water or milk. Vomiting may occur spontaneously but do not induce. Call a physician immediately.

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SECTION 5: Fire-Fighting Measures

5.1. Extinguishing Media

In case of fire: Use dry chemical, foam, or carbon dioxide to extinguish. Use extinguishing media appropriate for surrounding fire. Water spray, dry chemical, alcohol foam, carbon dioxide

5.2. Specific Hazards Arising from the Substance or Mixture in a Fire

Flammable liquid and vapor Combustible liquid. Combustion may produce irritants and toxic gases. Not combustible, but if involved in a fire reacts to produce hydrogen chloride and phosgene.

5.3. Special Protective Equipment and Precautions for Firefighters

Wear special protective clothing and positive pressure self-contained breathing apparatus. Butyl rubber, Teflon, Viton, or Saranex barrier recommended. Wear special protective clothing and positive pressure self-contained breathing apparatus. Polyvinyl alcohol or Viton barrier recommended.

SECTION 6: Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Ground and bond container and receiving equipment. Use explosion-proof equipment. Use non-sparking tools. Take action to prevent static discharge. Wear protective gloves and eye protection.

6.2. Cleanup and Containment Methods and Materials

Approach release from upwind. Stop or control the leak, if this can be done without undue risk. Control runoff and isolate discharged material for proper disposal. Use water spray to cool and disperse vapors, protect personnel, and dilute spills to form nonflammable mixtures. Use soda ash to neutralize spills. Control runoff and isolate discharged material for proper disposal.

SECTION 7: Handling and Storage

7.1. Precautions for Safe Handling and Storage Conditions

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage.

SECTION 8: Exposure Controls / Personal Protection

8.1. Exposure Limits

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U.S. OSHA - Permissible Exposure Limits (PEL) - Time Weighted Averages (TWA)

Chemical Name	CAS Number	Exposure Limit
Acetic Acid	64-19-7	10 ppm TWA; 25 mg/m ³ TWA

U.S. OSHA - Permissible Exposure Limits (PEL) - Ceiling Limits

Chemical Name	CAS Number	Exposure Limit
Chloroform	67-66-3	50 ppm Ceiling; 240 mg/m ³ Ceiling

U.S. OSHA - Permissible Exposure Limits (PEL) - Short Term Exposure Limits (STEL)

No limits found.

U.S. OSHA - Specifically Regulated Chemicals

No limits found.

ACGIH - Threshold Limit Values - Ceilings (TLV-C)

No limits found.

ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL)

Chemical Name	CAS Number	Exposure Limit
Acetic Acid	64-19-7	15 ppm STEL

ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

Chemical Name	CAS Number	Exposure Limit
Acetic Acid	64-19-7	10 ppm TWA
Chloroform	67-66-3	10 ppm TWA

8.2. Engineering Controls

Use only outdoors or in a well-ventilated area. A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limit.

8.3. Individual Protective Measures and Personal Protective Equipment

Respiratory Protection: If the exposure limit is exceeded, a full facepiece respirator equipped with organic vapor cartridge should be worn.

Skin Protection: Chemical resistant gloves.

Eye Protection: Safety glasses or goggles.

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SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

Physical State:	liquid
Color:	Colorless
Odor:	Data not available.
Odor Threshold:	Data not available.
Melting/Freezing Point:	Data not available.
Boiling Point/Range:	Data not available.
Flammability:	Data not available.
Flammability/Explosive Limits:	Data not available.
Flash Point:	49 °C (calculated)
Auto-Ignition Temperature:	Data not available.
Decomposition Temperature:	Data not available.
pH:	< 2
Kinematic Viscosity:	Data not available.
Solubility:	Data not available.
Vapor Pressure:	Data not available.
Evaporation Rate:	Data not available.
Relative Density:	1.2
Relative Vapor Density:	Data not available.
Particle Characteristics:	Data not available.
Partition Coefficient n-octanol/water, log	Data not available.

NOTE: Flash point was calculated according to the method of Gmehling and Rasmussen (Ind. Eng. Chem. Fundament, 21, 186, (1982)), as allowed by GHS Rev 7, section 2.6.4.2.3.

SECTION 10: Stability and Reactivity

10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

10.2. Possibility of Hazardous Reactions

Data not available.

10.3. Conditions to Avoid and Incompatible Materials

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Alkali metals (Sodium, Potassium, Lithium), strong caustics and oxidizers, chromic acid, sodium peroxide, nitric acid, perchloric acid.

10.4. Hazardous Decomposition Products

Will not occur.

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SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

Oral acute toxicity estimate (ATE): 1470 mg/kg(calculated)

Chemical Name	CAS Number	Toxicity
Acetic Acid	64-19-7	Oral LD50 Rat 3530 mg/kg (Source: Canada_HSA)
Chloroform	67-66-3	Oral LD50 Rat 908 mg/kg (males, Source: ECHA_API); Oral LD50 Rat 1117 mg/kg (females, Source: ECHA_API)

Acute Toxicity - Dermal Exposure:

No information found.

Chemical Name	CAS Number	Toxicity
Chloroform	67-66-3	Dermal LD50 Rabbit >20 g/kg (Source: NLM_CIP)

Acute Toxicity - Inhalation Exposure:

Inhalation acute toxicity estimate (ATE, vapor): 9.3656 mg/L, 4 h(calculated)

Chemical Name	CAS Number	Toxicity
Acetic Acid	64-19-7	Inhalation LC50 Rat > 8.5 mg/L 4 h (Source: Canada_HSA)
Chloroform	67-66-3	Inhalation LC50 Rat 10.5 mg/L 4 h (vapor, Source: ECHA_API)

11.2 Carcinogenicity:

International Agency for Research on Cancer (IARC)

Chemical Name	CAS Number	Classification
Chloroform	67-66-3	Group 2B (Possibly Carcinogenic to Humans) - Monograph 73 [1999]

National Toxicology Program (NTP)

Chemical Name	CAS Number	Classification
Chloroform	67-66-3	Reasonably Anticipated To Be A Human Carcinogen; Male Rat - Clear Evidence; Female Rat - No Evidence; Male Mice - Clear Evidence; Female Mice - Clear Evidence (TR-000)

U.S. OSHA specifically regulated carcinogens

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Chemical Name	CAS Number	Classification
No data found.		

11.3 Additional Toxicology Information:

Harmful if swallowed. Causes severe skin burns and eye damage. Toxic if inhaled. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. Causes damage to heart, kidneys, liver through prolonged or repeated exposure. Corrosive to the respiratory tract.

SECTION 12: Ecological Information

12.1. Ecotoxicity

Chemical Name	CAS Number	Species	Exposure	Toxicity
Acetic Acid	64-19-7	Freshwater Fish	Acute	LC50 96 h Pimephales promelas 79 mg/L [static] (EPA); LC50 96 h Lepomis macrochirus 75 mg/L [static] (EPA)
Chloroform	67-66-3	Freshwater Fish	Acute	LC50 96 h Pimephales promelas 71 mg/L [flow-through] (IUCLID); LC50 96 h Oncorhynchus mykiss 18 mg/L [flow-through] (IUCLID); LC50 96 h Lepomis macrochirus 18 mg/L [flow-through] (IUCLID); LC50 96 h Poecilia reticulata 300 mg/L [static] (IUCLID)
Acetic Acid	64-19-7	Water Flea	Acute	EC50 48 h Daphnia magna 65 mg/L [Static] (EPA)
Chloroform	67-66-3	Water Flea	Acute	EC50 48 h Daphnia magna 29 mg/L (IUCLID)

12.2. Persistence and Degradability

Data not available.

12.3. Bioaccumulative Potential

Data not available.

12.4. Mobility in soil

Data not available.

12.5. Other Adverse Ecological Effects

Data not available.



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SECTION 13: Disposal Considerations

13.1. Waste Treatment Methods

Data not available.

SECTION 14: Transportation Information

14.1 Transportation by Land - Department of Transportation (DOT, United States of America)

Sizes: 4 L

UN Number: UN2922

Proper Shipping Name: Corrosive liquids, toxic, n.o.s. (Acetic Acid, Chloroform)

Hazard Class: 8 (6.1)

Packing Group: II

Hazard Label(s):



14.2 Transportation by Air - International Air Transport Association (IATA)

Sizes: 4 L

UN Number: UN2922

Proper Shipping Name: Corrosive liquid, toxic, n.o.s. (Acetic Acid, Chloroform)

Hazard Class: 8 (6.1)

Packing Group: II

Hazard Label(s):



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14.3 Transportation of Dangerous Goods (TDG, Canada)

Sizes: 4 L

UN Number: UN2922

Proper Shipping Name: CORROSIVE LIQUIDS, TOXIC, N.O.S. (acetic acid, chloroform)

Hazard Class: 8 (6.1)

Packing Group: II

Hazard Label(s):



SECTION 15: Regulatory Information

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15.01. Occupational Safety and Health Administration (OSHA) Hazards

Chemical Name	CAS Number	Regulatory Information
No data found.		

15.02. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

Chemical Name	CAS Number	RQ	TPQ
Chloroform	67-66-3	10000 lb TPQ	10 lb EPCRA RQ

15.03. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

Chemical Name	CAS Number	Regulatory Information
Acetic Acid	64-19-7	5000 lb final RQ; 2270 kg final RQ
Chloroform	67-66-3	10 lb final RQ; 4.54 kg final RQ

15.04. Superfund Amendments and Reauthorization Act (SARA) 313 Toxics Release Inventory (TRI)

Chemical Name	CAS Number	List	Regulatory Information
Chloroform	67-66-3	Emission Reporting	0.1 % de minimis concentration

15.05. Massachusetts Right-to-Know Substance List

Chemical Name	CAS Number	Regulatory Information
Acetic Acid	64-19-7	Present (including glacial)
Chloroform	67-66-3	Carcinogen; Extraordinarily hazardous

15.06. Pennsylvania Right-to-Know Hazardous Substances

Chemical Name	CAS Number	Regulatory Information
Acetic Acid	64-19-7	Environmental hazard; Environmental hazard (water solutions)
Chloroform	67-66-3	Environmental hazard; Special hazardous substance

15.07. New Jersey Worker and Community Right-to-Know Components

Chemical Name	CAS Number	Regulatory Information
Acetic Acid	64-19-7	sn 0004
Chloroform	67-66-3	sn 0388

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15.08. California Proposition 65

Chemical Name	CAS Number	Regulatory Information
Chloroform	67-66-3	carcinogen, 10/1/1987
Chloroform	67-66-3	developmental toxicity, 8/7/2009
Chloroform	67-66-3	20 µg/day NSRL (oral); 40 µg/day NSRL (inhalation)

15.09. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Chemical Name	CAS Number	List	Status
Acetic Acid	64-19-7	DSL	Present
Acetic Acid	64-19-7	NDSL	"Present" As Carboxylic acids, C1-5 [68937-68-8]
Chloroform	67-66-3	DSL	Present

15.10. United States of America Toxic Substances Control Act (TSCA) List

Chemical Name	CAS Number	Status
Acetic Acid	64-19-7	Present (ACTIVE)
Chloroform	67-66-3	Present (ACTIVE)

15.11. European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

Chemical Name	CAS Number	List	Number
Acetic Acid	64-19-7	EINECS	200-580-7
Chloroform	67-66-3	EINECS	200-663-8

15.12. China - Inventory of Existing chemical Substances (IECSC)

Chemical Name	CAS Number	Status
Acetic Acid	64-19-7	Present [39068]
Chloroform	67-66-3	Present [23977]

15.13. Korea - Existing Chemicals Inventory (KECI/KECL)

Chemical Name	CAS Number	List	Status
Acetic Acid	64-19-7	Annex 1	Present [KE-00013]
Chloroform	67-66-3	Annex 1	Present [KE-34076]



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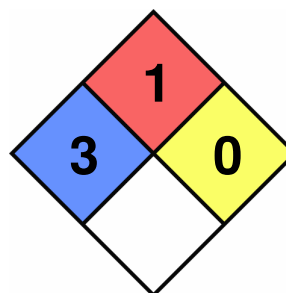
15.14. Japan - Existing and New Chemical Substances Inventory (ENCS)

Chemical Name	CAS Number	MITI No.
Acetic Acid	64-19-7	(2)-688
Chloroform	67-66-3	(2)-37

SECTION 16: Other Information

16.1 National Fire Protection Associate (NFPA) Rating

Health: 3
Flammability: 1
Reactivity: 0
Special Hazard:



16.2 Document Revision

Last Revision Date:
2026-05-22

DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.