

SECTION 1) CHEMICAL PRODUCT AND SUPPLIER'S IDENTIFICATION

CAS Number: 64-19-7 (Acetic Acid)
Product Name: Acetic Acid 28%
Revision Date: Jan 05, 2018 **Date Printed:** Dec 08, 2020
Version: 1.0 **Supersedes Date:** N.A.
Manufacturer's Name: Thames River Chemical Corp.
Address: 5230 Harvester Road Burlington, ON, CA, L7L 4X4
Emergency Phone: CHEMTREC (800) 424-9300
Information Phone Number: 905-681-5353
Fax: 905-681-5377
Product/Recommended Uses: For laboratory or industrial use only.

SECTION 2) HAZARDS IDENTIFICATION

Classification

Acute aquatic toxicity - Category 3
Serious Eye Damage - Category 1
Skin Corrosion - Category 1C

Pictograms



Signal Word

Danger

Hazard Statements - Health

Causes severe skin burns and eye damage

Hazard Statements - Environmental

Harmful to aquatic life

Precautionary Statements - General

If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.

Precautionary Statements - Prevention

Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash/Wash hands thoroughly after handling.

Precautionary Statements - Response

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.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

Wash contaminated clothing before reuse.

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

Specific treatment (see first-aid on the SDS).

Precautionary Statements - Storage

Store locked up.

Precautionary Statements - Disposal

Dispose of contents/container in accordance with local/national/international regulation. Waste management should be in full compliance with national, regional and local laws.

Physical Hazards Not Otherwise Classified

No data available.

Health Hazards Not Otherwise Classified

No data available.

SECTION 3) COMPOSITION/INFORMATION ON INGREDIENTS

CAS	Chemical Name	% By Weight
0007732-18-5	WATER	70% - 72%
0000064-19-7	ACETIC ACID	28% - 30%

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality or to reflect batch to batch variation.

SECTION 4) FIRST-AID MEASURES

4.2 Most important symptoms and effects, both acute and delayed

Causes severe skin burns and eye damage.

Inhalation

Get medical advice/attention if you feel unwell or are concerned. If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

Remove source of exposure or move person to fresh air and keep comfortable for breathing. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by the POISON CENTER/doctor.

Eye Contact

Immediately call a POISON CENTER/doctor. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a duration of 30 minutes or until medical aid is available. Take care not to rinse contaminated water into the unaffected eye or onto the face.

Skin Contact

Take off immediately all contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash contaminated clothing before reuse. Immediately call a POISON CENTER/doctor. Rinse skin with lukewarm, gently flowing water/shower for a duration of 30 minutes or until medical aid is available.

Ingestion

Rinse mouth. Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. If vomiting occurs naturally, lie on your side, in the recovery position.

Indication of Any Immediate Medical Attention and Special Treatment Needed

No data available.

SECTION 5) FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Foam. Dry powder. Carbon dioxide. Water spray. Sand

Unsuitable Extinguishing Media

Do not use straight stream of water.

Specific Hazards in Case of Fire

No data available.

Fire-fighting Procedures

Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Stop spill/release if it can be done safely.

Special Protective Actions

Wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

SECTION 6) ACCIDENTAL RELEASE MEASURES

Emergency Procedure

Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing. Ventilate closed spaces before entering. Evacuate and isolate hazard area and keep unauthorized personnel away.

Recommended Equipment

Wear chemical protective clothing and positive pressure self-contained breathing apparatus (SCBA). Wear liquid tight chemical protective clothing in combination with positive pressure self-contained breathing apparatus (SCBA).

Personal Precautions

Wear safety glasses, rubber gloves, Tyvek type coverall and rubber boots.

DO NOT get on skin, eyes or clothing. Avoid breathing vapor or mist.

Environmental Precautions

Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

Methods and Materials for Containment and Cleaning up

Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

Ventilate area after clean-up is complete.

SECTION 7) HANDLING AND STORAGE

General

Wash hands after use. Do not get in eyes, on skin or on clothing. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Use good personal hygiene practices. Eating, drinking and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas. This product is not intended for human or animal consumption. Use pneumatic and/or mechanical systems for bulk transfer of the substance. Use exhaust ventilation and/or dust collecting filters for bulk transfer and storage. Use approved respiratory protection when handling. Keep bulk of materials out of sewer drains. Eyewash stations and showers should be available in areas where this material is used and stored.

Ventilation Requirements

Use only with adequate ventilation to control air contaminants to their exposure limits. Report ventilation failures immediately. The use of local ventilation is recommended to control emissions near the source.

Storage Room Requirements

Store in original containers. Keep containers securely sealed. Protect containers against banging or other physical damage when storing, transferring, or using them. Store, handle, and use corrosive materials in well-ventilated areas. Never store corrosives above eye level. Keep away from incompatible materials (e.g. oxidizers).

SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye protection

Wear safety glasses with side shields

Wear indirect-vent, impact and splash resistant goggles when working with liquids

Skin Protection

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber.

Respiratory Protection

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 should be followed. Check with respiratory protective equipment suppliers.

Appropriate Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Chemical Name	CANsmg	CANspmm	CANtmg	CANtppm	OSHA STEL (mg/m3)	OSHA STEL (ppm)	OSHA TWA (mg/m3)	OSHA TWA (ppm)
ACETIC ACID	39	15	26	10			25	10

Chemical Name	OSHA Carcinogen	OSHA Tables (Z1, Z2, Z3)	OSHA Skin designation	ACGIH STEL (mg/m3)	ACGIH STEL (ppm)	ACGIH TWA (mg/m3)	ACGIH TWA (ppm)	ACGIH TLV Basis
ACETIC ACID		1			15		10	URT & eye irr; pulm func

Chemical Name	ACGIH Carcinogen	ACGIH Notations
ACETIC ACID		

func - Function, irr - Irritation, pulm - Pulmonary, URT - Upper respiratory tract

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Density	8.59 lb/gal
Specific Gravity	1.04
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Appearance	Colorless Liquid
Odor Description	Vinegar odour
Odor Threshold	N/A
pH	N/A
Melting/Freezing Point	N/A
Low Boiling Point	N/A
High Boiling Point	N/A
Flash Point	N/A
Vapor Pressure	N/A
Vapor Density	N/A
Evaporation Rate	N/A
Upper Explosion Level	N/A
Lower Explosion Level	N/A
Water Solubility	Soluble in water
Coefficient Water/Oil	N/A
Viscosity	1.6 mm ² /s

SECTION 10) STABILITY AND REACTIVITY

Reactivity

Thermal decomposition generates : Corrosive vapors.

Possibility of hazardous reactions

Reacts violently with (some) bases: release of heat

Stability

Stable under normal storage and handling conditions.

Conditions to Avoid

Direct sunlight. Extremely high or low temperatures

Hazardous Reactions/Polymerization

No data available.

Incompatible Materials

Strong oxidizers. Metals. Strong bases

Hazardous Decomposition Products

Carbon monoxide. Carbon dioxide. Thermal decomposition generates: Corrosive vapors

SECTION 11) TOXICOLOGICAL INFORMATION

Acute Toxicity

Acetic Acid (64-19-7)

LD50 oral (rat): 3310mg/kg body weight (Rat, Male/Female, experimental value, Oral, 6 days)

LC50 Inhalation (rat): 11.4 mg/l (Equivalent or similar to OECD 403, 4h, Rat, Female, Experimental Value, Inhalation(vapours), 14 days)

Aspiration Hazard

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

Carcinogenicity

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

Germ Cell Mutagenicity

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

Reproductive Toxicity

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

Respiratory/Skin Sensitization

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

0000064-19-7 ACETIC ACID

Inhalation can irritate the nose and throat.

Serious Eye Damage/Irritation

Causes serious eye damage

0000064-19-7 ACETIC ACID

Contact with eyes cause burns.

Skin Corrosion/Irritation

Causes severe skin burns and eye damage

0000064-19-7 ACETIC ACID

Contact with skin causes burns.

Specific Target Organ Toxicity - Repeated Exposure

No data available.

Specific Target Organ Toxicity - Single Exposure

No data available.

Likely Routes of Exposure

Inhalation, Ingestion, Skin contact, Eye contact

Miscellaneous Health Effects

0000064-19-7 ACETIC ACID

Can cause bronchitis to develop with cough, phlegm and/or shortness of breath.

0000064-19-7 ACETIC ACID

LC50 (mouse): 2810 ppm (4-hour exposure); cited as 5620 ppm (1-hour exposure) (17)

LD50 (dermal, guinea pig): 3360 mg/kg (cited as 3.2 mL/kg) (28% solution) (24, unconfirmed)

LD50 (oral, rat): 3530 mg/kg (concentration not specified) (18)

SECTION 12) ECOLOGICAL INFORMATION

Toxicity

LC50 Fish: >1000 mg/l (Equivalent or similar to OECD 203, 96h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value, GLP)

EC50 Daphnia: > 1000 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)

Mobility in Soil

Surface tension: 26.3 mN/m (30°C)

Ecology -soil: Highly mobile in soil. May be harmful to plant growth, booming and fruit formation.

0000064-19-7 ACETIC ACID

The substance is not PBT / vPvB

Bio-accumulative Potential

Acetic Acid (64-19-7)

BCF Fish: 3.16 (Pisces, Fresh water, QSAR)

Log Pow: -00.17 (Experimental value, 25°C)

Bio-accumulative potential: Not bio-accumulative

Persistence and Degradability

Acetic Acid (64-19-7)

Readily biodegradable in the soil. Readily biodegradable in water

Biochemical oxygen demand (BOD): 0.6-0.74 g O₂/g substance

Chemical Oxygen Demand (COD): 1.03 g O₂/g substance

ThOD: 1.07 g O₂/g substance

0000064-19-7 ACETIC ACID

Readily biodegradable.

Other Adverse Effects

Do not allow material to run into surface waters, wastewater or soil

Results of the PBT and vPvB assessment

0000064-19-7 ACETIC ACID

The substance is not PBT / vPvB.

SECTION 13) DISPOSAL CONSIDERATIONS

Waste Disposal

Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. It is the responsibility of the user of the product to determine at the time of disposal whether the product meets local criteria for hazardous waste. Waste management should be in full compliance with national, provincial and local laws.

SECTION 14) TRANSPORT INFORMATION

	Transport Canada Information	U.S. DOT Information
UN number:	UN2790	UN2790
Proper shipping name:	Acetic acid solution, with more than 10 percent and less than 50 percent acid, by mass	Acetic acid solution, with more than 10 percent and less than 50 percent acid, by mass
Hazard class:	8	
Hazard class:		8
Packaging group:	III	III
Hazardous substance (RQ):		No Data Available
Marine Pollutant:	No Data Available	No Data Available
Note / Special Provision:	Note / Special Provision	No Data Available
Toxic-Inhalation Hazard:		No Data Available
Transport in bulk (according to Annex II of MARPOL 73/78):	No Data Available	

SECTION 15) REGULATORY INFORMATION

CAS	Chemical Name	% By Weight	Regulation List
0007732-18-5	WATER	70% - 70%	DSL,TSCA,EU_EC_Inventory
0000064-19-7	ACETIC ACID	30% - 30%	DSL,TSCA,EU_EC_Inventory

SECTION 16) OTHER INFORMATION

Glossary

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG- Canadian Transportation of Dangerous Goods; CANsmg or CANspmm - Canadian Short Term Exposure Level in mg/L or in ppm; CANTmg or CANTppm - Canadian Time Weighted Average in mg/L or in ppm; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center(US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self Contained Breathing Apparatus; STEL-Short Term Exposure Limit; TCEQ Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

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