

# SAFETY DATA SHEET

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## SECTION 1) CHEMICAL PRODUCT AND SUPPLIER'S IDENTIFICATION

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**CAS Number:** 64-19-7  
**Product Name:** Acetic Acid 92%  
**Revision Date:** Jan 24, 2018 **Date Printed:** Jan 24, 2018  
**Version:** 2.0 **Supersedes Date:** Oct 23, 2017  
**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.

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## SECTION 2) HAZARDS IDENTIFICATION

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### Classification

Corrosive to metals - Category 1  
Flammable Liquids - Category 3  
Skin Corrosion - Category 1A  
Specific Target Organ Toxicity -Single Exposure (Respiratory Tract Irritation) - Category 3

### Pictograms



### Signal Word

Danger

### Hazard Statements - Health

Causes severe skin burns and eye damage  
May cause respiratory irritation

### Hazard Statements - Physical

May be corrosive to metals  
Flammable liquid and vapor

### 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

Keep only in original packaging.  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Keep container tightly closed.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical, ventilating, lighting equipment.

Use only non-sparking tools.  
Take action to prevent static discharges.  
Wear protective gloves/protective clothing/eye protection/face protection.  
Do not breathe dust/fume/gas/mist/vapors/spray.  
Wash thoroughly/Wash hands thoroughly after handling.  
Avoid breathing dust/fume/gas/mist/vapors/spray.  
Use only outdoors or in a well-ventilated area.

#### **Precautionary Statements - Response**

Absorb spillage to prevent material damage.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
In case of fire: Use carbon dioxide, alcohol foam, water spray or dry chemical to extinguish.  
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
Wash contaminated clothing before reuse.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
Immediately call a POISON CENTER or doctor.  
Specific treatment (see first-aid on the SDS).  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Call a POISON CENTER or doctor, if you feel unwell.

#### **Precautionary Statements - Storage**

Store in a corrosive resistant container with a resistant inner liner.  
Store in a well-ventilated place. Keep cool.  
Store locked up.  
Store in a well-ventilated place. 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

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### **SECTION 3) COMPOSITION/INFORMATION ON INGREDIENTS**

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<b>CAS</b>	<b>Chemical Name</b>	<b>% By Weight</b>
0000064-19-7	ACETIC ACID	92%
0007732-18-5	WATER	8%

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### **SECTION 4) FIRST-AID MEASURES**

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#### **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. Eliminate all ignition sources if safe to do so. 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. If eye irritation persists: Get medical advice/attention.

#### **Skin Contact**

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

### **Ingestion**

If vomiting occurs naturally, lie on your side, in the recovery position. Immediately call a POISON CENTER/doctor.

### **Most Important Symptoms and Effects, Both Acute and Delayed**

No Data Available

### **Indication of Any Immediate Medical Attention and Special Treatment Needed**

No Data Available

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## **SECTION 5) FIRE-FIGHTING MEASURES**

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### **Suitable Extinguishing Media**

Small Fire : Dry chemical, foam, carbon dioxide, water-spray or alcohol-resistant foam. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Large Fire: Water spray, fog or alcohol-resistant foam.

### **Unsuitable Extinguishing Media**

Do not use straight stream of water.

### **Specific Hazards in Case of Fire**

Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Many vapors are heavier than air. Containers may explode in fire. Many liquids are lighter than water. May form an ignitable vapor/air mixture in closed tanks or containers. Runoff to sewer may create fire or explosion hazard. Vapors may form explosive mixtures with air Vapors may travel to source of ignition and flashback Vapors will spread along ground and collect in low or confined areas (sewers, basements, tanks) Polymer: May polymerize explosively when heated or involved in a fire. Fire will produce irritating and corrosive gases. Contact with metals may evolve flammable hydrogen gas.

### **Fire-fighting Procedures**

Nitromethane and nitroethane: Do not use dry chemical extinguishers to control fires. Isolate immediate hazard area and keep unauthorized personnel out. Move undamaged containers from immediate hazard area if it can be done safely. Stop spill/release if it can be done safely. Cool containers with flooding quantities of water until well after fire is out. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Product has a low flashpoint: Use of water spray when fighting fire may be inefficient. Large Fire: Dike fire-control water for later disposal; do not scatter the material

### **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.

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## **SECTION 6) ACCIDENTAL RELEASE MEASURES**

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### **Emergency Procedure**

Isolate hazard area and keep unauthorized personnel away. Stay uphill and/or upstream. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing. Ventilate closed spaces before entering. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Evacuate and isolate hazard area and keep unauthorized personnel away. A vapor-suppressing foam may be used to reduce vapors.

### **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**

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

### **Environmental Precautions**

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. Dike far ahead of liquid spill for later disposal.

### **Methods and Materials for Containment and Cleaning up**

Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean, non-sparking tools to collect absorbed material. Ventilate area after clean-up is complete.

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## SECTION 7) HANDLING AND STORAGE

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### General

Wash hands after use. Do not get in eyes, on skin or on clothing. Do not breathe vapors or mists. 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. All containers must be properly labelled. 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

Do not store large quantities of flammable liquids in the same storage cabinet. Store in dry, cool areas, out of direct sunlight and away from other sources of heat. Empty containers retain residue and may be dangerous. Keep away from incompatible materials (e.g. oxidizers). Store flammable and combustible liquids in areas that are cool, dry and well ventilated to reduce vapour concentrations. Never use plastic or glass containers for storing flammable liquids. Keep containers securely sealed when not in use. Bond and ground metal containers/cylinders when transferring. Avoid storing in direct sunlight or near other heat sources; eliminate all sources of ignition. Cabinets must be labelled; FLAMMABLE - KEEP FIRE AWAY. Avoid storing in basements. Protect containers against banging or other physical damage when storing, transferring, or using them. Procedures must be conducted in a fume hood, glove box, or other suitable containment device. Segregate from other hazard classes and store in a cool, dry, well ventilated area, away from sources of ignition and incompatibilities. Provide secondary containment for toxic materials. Store, handle, and use corrosive materials in well-ventilated areas. Keep the smallest amount of material in work areas. Do not store on metal shelves. Store containers in plastic tubs or trays as secondary containment. Avoid rapid temperature changes in liquid storage areas. Store at temperatures above their respective freezing/melting point. Never store corrosives above eye level. Label cabinets with "TOXIC CHEMICALS" or similar warning.

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## SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

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### Eye protection

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	CANsppm	CANtmg	CANtppm	OSHA STEL (mg/m3)	OSHA STEL (ppm)	OSHA TWA (mg/m3)	OSHA TWA (ppm)	OSHA Carcinogen	OSHA Tables (Z1, Z2, Z3)	OSHA Skin designation	ACGIH STEL (mg/m3)
ACETIC ACID	39	15	26	10			25	10		1		37

Chemical Name	ACGIH STEL (ppm)	ACGIH TWA (mg/m3)	ACGIH TWA (ppm)	ACGIH TLV Basis	ACGIH Carcinogen	ACGIH Notations
ACETIC ACID	15	25	10	URT & eye irr; pulm func		

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

## SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

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### Physical and Chemical Properties

Density	8.73 lb/gal
Specific Gravity	1.05
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Appearance	clear, colourless liquid
Odor Description	pungent, penetrating vinegar odour
Odor Threshold	0.07ppm mg/l
pH	< 0.5
Melting Point	4 °C
Low Boiling Point	110 °C
High Boiling Point	N/A
Flash Point	> 40 - <= 50 °C
Vapor Pressure	1.44 mmHg
Vapor Density	2.1 (acetic acid), 0.6 (water)
Evaporation Rate	1 for glacial acetic acid (Butyl Acetate = 1)
Upper Explosion Level	N/A
Lower Explosion Level	N/A
Water Solubility	Complete
Coefficient Water/Oil	-0.17 (Log Po/w)
Viscosity	1.22 centipoise

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## SECTION 10) STABILITY AND REACTIVITY

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### Reactivity

No Data Available

### Stability

Stable under normal storage and handling conditions.

### Conditions to Avoid

Avoid heat, sparks, flame, high temperature, freezing and contact with incompatible materials.

### Hazardous Reactions/Polymerization

Hazardous polymerization will not occur.

### Incompatible Materials

Amines

Strong bases, acids, oxidizing and reducing agents.

### Hazardous Decomposition Products

Thermal decomposition products may include oxides of carbon.

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## SECTION 11) TOXICOLOGICAL INFORMATION

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### Likely Route of Exposure

Inhalation, ingestion, skin absorption

### Acute Toxicity

### Aspiration Hazard

No Data Available

### Carcinogenicity

No Data Available

**Germ Cell Mutagenicity**

No Data Available

**Reproductive Toxicity**

No Data Available

**Respiratory/Skin Sensitization**

No Data Available

**Serious Eye Damage/Irritation**

No Data Available

**Skin Corrosion/Irritation**

Causes severe skin burns and eye damage

**Specific Target Organ Toxicity - Repeated Exposure**

No Data Available

**Specific Target Organ Toxicity - Single Exposure**

May cause respiratory irritation

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)

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**SECTION 12) ECOLOGICAL INFORMATION**

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**Toxicity**

Acute fish toxicity LC50: > 300.82 mg/l (96h) - *Oncorhynchus mykiss* (rainbow trout) - OECD 203

Acute daphnia toxicity EC50: > 300.82 mg/l (48h) - OECD 202

Toxicity to aquatic plants EC50: > 300.82 mg/l (72h) - *Daphnia magna* - ISO 10253

**Mobility in Soil**

No Data Available

**Bio-accumulative Potential**

No Data Available

**Persistence and Degradability**

No Data Available

**Other Adverse Effects**

No Data Available

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**SECTION 13) DISPOSAL CONSIDERATIONS**

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**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

### U.S. DOT Information

UN number: UN2789

Proper shipping name: Acetic acid, glacial or Acetic acid solution, with more than 80 percent acid, by mass

Hazard class: 8

Packaging group: II

Hazardous substance (RQ): No Data Available

Toxic-Inhalation Hazard: No Data Available

Marine Pollutant: No Data Available

Note / Special Provision: No Data Available

### Transport Canada Information

UN number: UN2789

Proper shipping name: Acetic acid, glacial or Acetic acid solution, with more than 80 percent acid, by mass

Hazard class: 8

Packaging group: II

Marine Pollutant: No Data Available

Transport in bulk (according to Annex II of MARPOL 73/78): No Data Available

Note / Special Provision: Note / Special Provision

## SECTION 15) REGULATORY INFORMATION

CAS	Chemical Name	% By Weight	Regulation List
0000064-19-7	ACETIC ACID	92%	DSL,TSCA,EU_EC_Inventory - EC Inventory
0007732-18-5	WATER	8%	DSL,TSCA,EU_EC_Inventory - 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.

### Version 2.0:

Revision Date: Jan 24, 2018

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