



# ACETIC ACID, DILUT-IT® ANALYTICAL CONCENTRATE, 1N

## 1. Product Identification

Synonyms: None  
CAS No.: 64-19-7  
Molecular Weight: 60.05  
Chemical Formula: CH<sub>3</sub>COOH in water  
Product Codes: 4706

## 2. Composition/Information on Ingredients

| Ingredient  | CAS No    | Percent  | Hazardous |
|-------------|-----------|----------|-----------|
| Acetic Acid | 64-19-7   | 56 - 58% | Yes       |
| Water       | 7732-18-5 | 42 - 44% | No        |

## 3. Hazards Identification

### Emergency Overview

**DANGER! CORROSIVE. LIQUID AND MIST CAUSE SEVERE BURNS TO ALL BODY TISSUE. MAY BE FATAL IF SWALLOWED. HARMFUL IF INHALED. INHALATION MAY CAUSE LUNG AND TOOTH DAMAGE. FLAMMABLE LIQUID AND VAPOR.**

**J.T. Baker SAF-T-DATA<sup>(tm)</sup> Ratings (Provided here for your convenience)**

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Health Rating: 2 - Moderate

Flammability Rating: 2 - Moderate

Reactivity Rating: 2 - Moderate

Contact Rating: 3 - Severe (Corrosive)

Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES;  
CLASS B EXTINGUISHER

Storage Color Code: Red (Flammable)

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**Potential Health Effects**

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**Inhalation:**

Inhalation of concentrated vapors may cause serious damage to the lining of the nose, throat, and lungs. Breathing difficulties may occur. Neither odor nor degree of irritation are adequate to indicate vapor concentration.

**Ingestion:**

Swallowing can cause severe injury leading to death. Symptoms include sore throat, vomiting, and diarrhea. Ingestion of as little as 1.0 ml has resulted in perforation of the esophagus.

**Skin Contact:**

Contact with concentrated solution may cause serious damage to the skin. Effects may include redness, pain, skin burns. High vapor concentrations may cause skin sensitization.

**Eye Contact:**

Eye contact with concentrated solutions may cause severe eye damage followed by loss of sight. Exposure to vapor may cause intense watering and irritation to eyes.

**Chronic Exposure:**

Repeated or prolonged exposures may cause darkening of the skin, erosion of exposed front teeth, and chronic inflammation of the nose, throat, and bronchial tubes.

**Aggravation of Pre-existing Conditions:**

Persons with pre-existing skin disorders or eye problems, or impaired respiratory function may be more susceptible to the effects of the substance.

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## 4. First Aid Measures

**Inhalation:**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

**Ingestion:**

DO NOT INDUCE VOMITING! Give large quantities of water or milk if available. Never give anything by mouth to an unconscious person. Get medical attention immediately.

**Skin Contact:**

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Call a physician.

**Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

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## 5. Fire Fighting Measures

# 8. Exposure Controls/Personal Protection

**Airborne Exposure Limits:**

# 10. Stability and Reactivity

**Stability:**

Stable under ordinary conditions of use and storage. Heat and sunlight can contribute to instability. Releases heat and toxic, irritating vapors when mixed with water. Acetic acid contracts slightly upon freezing which may cause the container to burst.

**Hazardous Decomposition Products:**

Carbon dioxide and carbon monoxide may form when heated to decomposition. May also release toxic and irritating vapors.

**Hazardous Polymerization:**

Will not occur.

**Incompatibilities:**

Acetic Acid is incompatible with chromic acid, nitric acid, ethylene glycol, perchloric acid, phosphorous trichloride, oxidizers, sodium peroxide, strong caustics, most metals (except aluminum), carbonates, hydroxides, oxides, and phosphates.

**Conditions to Avoid:**

Heat, flame, ignition sources, freezing, incompatibles

# 11. Toxicological Information

For Acetic Acid: Oral rat LD50: 3310 mg/kg. Dermal rabbit LD50: 1.06g/Kg. Inhalation mouse LC50: 5620 ppm/1 hr. Investigated as a mutagen, reproductive effector.

-----\Cancer Lists\-----

| Ingredient            | ---NTP Carcinogen--- |             | IARC Category |
|-----------------------|----------------------|-------------|---------------|
|                       | Known                | Anticipated |               |
| Acetic Acid (64-19-7) | No                   | No          | None          |
| Water (7732-18-5)     | No                   | No          | None          |

# 12. Ecological Information

**Environmental Fate:**

For glacial acetic acid: If released to the atmosphere, it is degraded in the vapor phase by reaction with photochemically produced hydroxyl radicals (estimated typical half-life of 26.7 days). If released to water, acetic acid will biodegrade readily. If released to soil, it will biodegrade readily. Standard dilution BOD water, 5-day 57.7% theoretical BOD average. Acetic acid shows no potential for biological accumulation or food chain contamination. BCF estimated < 1.

**Environmental Toxicity:**

For glacial acetic acid:  
EC50 (wheat fumigation) = 23.3 mg/m<sup>3</sup>/2-h ur..s50 (1.

# 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

# 14. Transport Information

### Domestic (Land, D.O.T.)

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**Proper Shipping Name:** ACETIC ACID SOLUTION  
**Hazard Class:** 8  
**UN/NA:** UN2790  
**Packing Group:** II  
**Information reported for product/size:** 1PK

### International (Water, I.M.O.)

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**Proper Shipping Name:** ACETIC ACID, SOLUTION  
**Hazard Class:** 8  
**UN/NA:** UN2790  
**Packing Group:** II  
**Information reported for product/size:** 1PK

### International (Air, I.C.A.O.)

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**Proper Shipping Name:** ACETIC ACID, SOLUTION  
**Hazard Class:** 8  
**UN/NA:** UN2790  
**Packing Group:** II  
**Information reported for product/size:** 1PK

# 15. Regulatory Information

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-----\Chemical Inventory Status - Part 1\-----
Ingredient                                     TSCA   EC    Japan  Australia
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Acetic Acid (64-19-7)                         Yes   Yes   Yes    Yes
Water (7732-18-5)                             Yes   Yes   Yes    Yes

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-----\Chemical Inventory Status - Part 2\-----
Ingredient                                     Korea  --Canada--  Phil.
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Acetic Acid (64-19-7)                         Yes   Yes   No     Yes
Water (7732-18-5)                             Yes   Yes   No     Yes

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| Ingredient            | RQ | TPQ | List | Chemical Catg. |
|-----------------------|----|-----|------|----------------|
| Acetic Acid (64-19-7) | No | No  | No   | No             |
| Water (7732-18-5)     | No | No  | No   | No             |

-----\Federal, State & International Regulations - Part 2\-----

| Ingredient            | CERCLA | -RCRA-<br>261.33 | -TSCA-<br>8(d) |
|-----------------------|--------|------------------|----------------|
| Acetic Acid (64-19-7) | 5000   | No               | No             |
| Water (7732-18-5)     | No     | No               | No             |

Chemical Weapons Convention: No      TSCA 12(b): No      CDTA: No  
SARA 311/312: Acute: Yes      Chronic: Yes      Fire: Yes      Pressure: No  
Reactivity: Yes      (Mixture / Liquid)

**Australian Hazchem Code:** 2R

**Poison Schedule:** None allocated.

**WHMIS:**

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

## 16. Other Information

**NFPA Ratings:** Health: 3 Flammability: 2 Reactivity: 0

**Label Hazard Warning:**

DANGER! CORROSIVE. LIQUID AND MIST CAUSE SEVERE BURNS TO ALL BODY TISSUE. MAY BE FATAL IF SWALLOWED. HARMFUL IF INHALED. INHALATION MAY CAUSE LUNG AND TOOTH DAMAGE. FLAMMABLE LIQUID AND VAPOR.

**Label Precautions:**

- Do not get in eyes, on skin, or on clothing.
- Do not breathe vapor or mist.
- Keep container closed.
- Use only with adequate ventilation.
- Wash thoroughly after handling.
- Keep away from heat, sparks and flame.

**Label First Aid:**

In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In all cases call a physician.

**Product Use:**

Laboratory Reagent.

**Revision Information:**

No changes.

**Disclaimer:**

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