


# The Home Scientist, LLC

Material Safety Data Sheet

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MSDS #: CA01  
Effective Date: May 15, 2011

SECTION I NAME		24 HOUR EMERGENCY ASSISTANCE				
Product:	Acetic acid, 6.0 M (6.0 N) solution	<b>NFPA</b> 	<b>CHEMTREC</b> (800) 424-9300	<b>HMIS*</b>		
Chemical Synonyms:	Ethanoic acid, 6.0 M solution			<b>Health: 2</b>		
Formula:	Mixture. See Section II.			<b>Fire: 1</b>		
Unit Size:	up to 1.000 liter			<b>Reactivity: 1</b>		
CAS #:	Mixture. See Section II.	<b>Hazard Rating</b>				
		Minimal 0	Slight 1	Moderate 2	Serious 3	Severe 4

SECTION II INGREDIENTS OF MIXTURES			
Principal Component(s)	Percentage	Hazardous?	TLV Units
Acetic Acid, glacial CH <sub>3</sub> COOH (CAS #: 64-19-7)	34.5%	Yes	See Section V
Water, H <sub>2</sub> O (CAS #: 7732-18-5)	65.5%	No	None established

**DANGER! CORROSIVE! POISON!**  
**MAY BE FATAL IF SWALLOWED. CAUSES BURNS. VAPOR HARMFUL.**

SECTION III PHYSICAL DATA (for acetic acid, glacial)			
Melting Point (°F):	16.7 °C (62 °F)	Specific Gravity (H <sub>2</sub> O = 1):	1.049 @ 20 °C
Boiling point (°F):	118.1 °C (244 °F)	Percent Volatile by Volume (%):	100%
Vapor Pressure (mm of Hg):	11.4 mm at 20 °C (68 °F)	Evaporation Rate (Water = 1):	Data not listed.
Vapor Density (Air = 1):	2.07		
Solubility in Water:	Complete		
Appearance & Odor:	Clear, colorless fuming liquid; pungent, biting vinegar-like odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA				
Flash Point (Method Used)	Non-flammable.	Flammable Limits in Air % by Volume	N/A	Lower N/A Upper N/A
Extinguisher Media	CO <sub>2</sub> , dry chemical, dry sand, alcohol-resistant foam. Large spills use water spray or alcohol foam.			

### SPECIAL FIREFIGHTING PROCEDURES

In the event of a fire, wear full protective clothing and a NIOSH/MSHA-approved self-contained breathing apparatus.

(2004 EMERGENCY RESPONSE GUIDEBOOK, RSPA P 5800.9, GUIDE PAGE NO. 153)

### UNUSUAL FIRE AND EXPLOSION HAZARDS

Acid reacts with most metals to release hydrogen gas, which can form explosive mixtures with air. Slight fire hazard when exposed to heat or flame. Fire or excessive heat may produce hazardous decomposition products. May produce acid burns to eyes and skin. Prolonged breathing of vapor may be harmful.

**D.O.T. Acetic acid, 8, UN2790, PG III, Ltd Qty ≤ 5 Lt.**

## SECTION V HEALTH HAZARD DATA

CA01

**THRESHHOLD LIMITED VALUE** None established for this solution. (ACGIH 2001). Toxicity data: oral-rat LD50: 3.3 g/kg.

**EFFECTS OF OVEREXPOSURE** **INGESTION:** Corrosive! Causes severe irritation of and damage to mouth, throat, and stomach. May be fatal. **EYE:** Can cause chemical burns and irreversible damage. Vapors are severely irritating. **SKIN:** Can cause chemical skin burns. **INHALATION:** Inhalation of vapors causes severe irritation of nasal passages, throat, and lungs. Can cause pulmonary edema. Target organs: Respiratory system, eyes, skin, teeth.

**EMERGENCY AND FIRST AID PROCEDURES** **INGESTION:** Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person. **EYES:** Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention. **SKIN:** Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention. **INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

## SECTION VI REACTIVITY DATA

Stability	Unstable		Conditions to Avoid	Keep from freezing. Avoid excessive temperature, heat, sparks, and open flame.
	Stable	X		
Incompatibility (Materials to Avoid)		Oxidizing agents or strong alkalies.		
Hazardous Decomposition Products		Dangerous. When heated to decomposition, emits corrosive fumes and toxic carbon monoxide.		
Hazardous Polymerization		Conditions to Avoid		
May Occur	Will Not Occur			
	X	Not applicable.		

## SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled	Eliminate all sources of ignition. Avoid eye or skin contact. Neutralize with sodium bicarbonate or soda ash, and flush to sewer with copious amounts of water.
Waste Disposal Method	Discharge, treatment, or disposal may be subject to Federal, State, or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only. Neutralize with alkaline materials and flush to sewer with copious amounts of water.

## SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type)	For laboratory use, work in a fume hood or wear a NIOSH/MSHA-approved respirator.			
Ventilation	Local Exhaust	Recommended	Special	No
	Mechanical (General)	Recommended	Other	No
Protective Gloves	Rubber, Neoprene	Eye Protection	Goggles and face shield	
Other Protective Equipment	Goggles and faceshield, eye wash station, proper gloves, ventilation hood, lab coat, apron.			

## SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing	Keep container tightly closed when not in use. Store in a well-ventilated area away from heat, sparks, and open flame at a temperature above 17 °C (63 °F). Isolate from incompatible substances. Remove cap slowly. Wash thoroughly after handling.
Other Precautions	Read label on container before using. Do not wear contact lenses when working with chemicals. For laboratory use only. Not for drug, food, cosmetic, or household use. Keep out of reach of children. Avoid contact with skin and eyes. Avoid breathing vapor and use adequate ventilation.

Revision #: 1	Date: May 15, 2011	Approved: Robert Bruce Thompson	Chemical Safety Coordinator: RBT
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\* Hazardous Materials Industrial Standards