



Material Safety Data Sheet

1. IDENTIFICATION

PRODUCT NAME: H2-NITRO-PRO
CHEMICAL NAME/SYNONYMS: Acetic Acid 20%
CHEMICAL FAMILY:
CHEMICAL FORMULA: CH₃COOH
For emergencies call Chemtrec at 1-800-424-9300

2. HAZARD(S) IDENTIFICATION

EMERGENCY OVERVIEW: Vapors irritating to eyes and respiratory tract. Avoid inhalation. Liquid may cause eye burns and permanent damage to cornea, possibly leading to blindness. Causes skin irritation.

POTENTIAL HEALTH EFFECTS:

EYES: Extremely Irritating to the eyes. If not removed promptly, will injure eye tissue, which may result in permanent damage, including blindness.

SKIN: Contact may cause mild injury and burns from vinegar of 10% acetic acid and greater. Dilute solutions may cause dermatitis in some sensitive individuals.

INGESTION: Concentrated vinegar may cause pain, irritation and burns in mouth, esophagus and stomach.

INHALATION: Inhalation of vapors can cause irritation to respiratory tract. Avoid breathing vapors or mists.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>CAS #</u>	<u>COMPONENT</u>	
<u>PERCENT</u>		
64-19-7	Acetic Acid	4 to 30 (40 to 300 grain)

4. FIRST-AID MEASURES

In case of eye or skin contact, flush immediately and thoroughly with water. Saturated clothing should be removed and washed. If vapors are inhaled extensively, exposed person should be removed to fresh air immediately. If swallowed, water should be consumed to dilute. Do not induce vomiting. Do not give emetics or baking soda. Call a physician.

5. FIRE-FIGHTING MEASURES

GENERAL FIRE HAZARDS:	Vinegar	Acetic acid
UPPER FLAMMABLE LIMIT (UFL): N/A		
LOWER FLAMMABLE LIMIT (LFL): N/A		
FLAMMABLE LIMITS IN AIR:	N/A	4.0% - 20%
METHOD USED: N/A		
FLASH POINT:	n/a	40°C closed cup
FLAMMABILITY CLASSIFICATION: N/A		

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H2-NitroPro

AUTO IGNITION: N/A 427°C (800°F)
EXTINGUISHING MEDIA: Water spray, foam CO2 or dry chemical. Water may be used to dilute spills and reduce flammability.

FIRE FIGHTING EQUIPMENT/INSTRUCTIONS:
UNUSUAL FIRE AND EXPLOSION HAZARDS: Toxic gases and vapors may be released in a fire involving concentrated vinegar.

NFPA CODES: HEALTH: 1 FIRE: 2 REACTIVITY: 0 SPECIAL HAZARD:
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

6. ACCIDENTAL RELEASE MEASURES

SAFEGARDS (PERSONNEL): Protect Skin and eyes from exposure. Avoid breathing vapor.
INITIAL CONTAINMENT: Contain spilled material. Water may be used to dilute. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.
LARGE SPILL PROCEDURE: Contain spilled material. Large spills may be neutralized with dilute alkaline solutions of soda ash or lime. Avoid runoff into storm sewers and ditches that lead to waterways. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.
SMALL SPILLS PROCEDURE: Water may be used to dilute. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

7. HANDLING AND STORAGE

HANDLING (PERSONNEL): Avoid breathing vapors. Avoid contact with eyes, skin and clothing. Wash contaminated clothing before reuse.
STORAGE PRECAUTIONS: Store in a well ventilated place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Local exhaust ventilation may be necessary to control any air contaminants to within their TLV's during the use of this product.
EYE/FACE PROTECTION REQUIREMENTS: Wear safety glasses.
SKIN PROTECTION REQUIREMENTS: When prolonged or frequently repeated contact could occur, use protective clothing impervious to this material. Wear protective gloves to minimize skin contamination.
RESPIRATORY PROTECTION REQUIREMENTS: When there is potential for airborne exposures in excess of applicable limits, wear NIOSH/MSHA approved respiratory protection. Under normal use conditions, with adequate ventilation, no special handling equipment is required.
EXPOSURE GUIDELINES FOR ACETIC ACID:
Recommended Exposure Limit: 10 PPM
Odor Threshold: 0.037-0.15 PPM
Immediately Dangerous to Life or Health (IDLH) Level: 1000 PPM
OSHA TWA: 10 PPM
ACGIH TWA: 10 PPM
OSHA STEL: 15 PPM
Skin Designation: Yes

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM: Liquid
COLOR: Appropriate color for type of vinegar
ODOR: Appropriate odor for type of vinegar
BOILING POINT: 215°F @ 760 mm Hg and 100 grain
VAPOR PRESSURE: (Acetic Acid) 11 mOl Hg @ 68°F

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VAPOR DENSITY: 2.1 (Air=1)
SOLUBILITY IN WATER: Complete
SPECIFIC GRAVITY: 1.01 to 1.04 (Water = 1)
MELTING/FREEZING POINT: Vinegar: approx. 30°F (Acetic Acid 62°F)
pH: 2.2 @ 10% acetic acid
% VOLATILES: 100%

10. STABILITY AND REACTIVITY**STABILITY:** Stable**POLYMERIZATION:** Product will not undergo polymerization.**INCOMPATIBILITY WITH OTHER MATERIALS:** Avoid contact with strong oxidizing agents.
Avoid contact with strong bases.**DECOMPOSITION:** Decomposition will not occur if handled and stored properly. In the case of a fire, oxides of carbon, fumes, and smoke may be produced.**11. TOXICOLOGICAL INFORMATION**

No toxic effects are likely (other than contact-sits irritation/damage).

12. ECOLOGICAL INFORMATION**13. DISPOSAL CONSIDERATIONS****Dispose of waste materials according to all federal, state and local regulations.****14. TRANSPORT INFORMATION****This material is regulated as a DOT Hazardous Material.****US DOT INFORMATION:**

UN/NA #	Shipping Name Hazard	Class	Packing Group	ERG	RQ
UN 2790,	Acetic Acid Solution, 20%,	8,	III,	153	5000lbs

15. REGULATORY INFORMATIONCanadian Disclosure List:
acetic acid (64-19-7)

FDA (Food and Drug Administration):

Material is a GRAS (Generally Recognized as Safe) food ingredient.

CERCLA Hazardous substances

Acetic acid (64-19-7) – RQ 5,000 lb

16. OTHER INFORMATION

Do not use ingredient information and/ or ingredient percentages in this MSDS as a product specification. For product specification information refer to a product specification sheet and/or a certificate of analysis. These can be obtained from H2O Technical Services.

DISCLAIMER:

We believe that the information in this MSDS is accurate. The suggested procedures are based on experience as of the date of publication. They are not necessarily either all-inclusive or fully adequate in every circumstance. Also, these suggestions should not be confused with or followed in violation of applicable laws, regulations, rules or insurance requirements.

NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE.