

Universal Soil Amendments

15225 County Road 28.1

Sterling, CO 80751

Phone: (970) 522-0930 – Fax: (970) 522-2097

MATERIAL SAFETY DATA SHEET

Date Issued: Jan. 2006

Trade Name: Vinegar, all varieties

Chemical Name: Acetic Acid

Chemical Formula: CH_3COOH

Definition: Product made by the acetous fermentation of ethyl alcohol containing 4 to 30% acetic acid (or 40 to 300 grain vinegar).

Manufacturer's Name and Address: National Vinegar Co.

P.O. Box 255

Alton, IL 62002

Phone Number:

800-783-3822

National Vinegar Co.

P.O. Box 495

Olney, IL 62450

800-783-9723

HEALTH HAZARD DATA

Inhalation: Threshold Limit Value: 10 ppm
Short Term Exposure Limit: 15 ppm for 15 minutes
Odor Threshold: 1.0 ppm

Inhalation of vapors can cause irritation to respiratory tract.

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

Eyes: May cause severe burns and permanent corneal injury from concentrated vinegars. May be followed by blindness. High vapor concentrations may result in conjunctivitis.

Ingestion: Concentrated vinegars may cause pain, irritation and burns in mouth, gullet and stomach.

EMERGENCY & FIRST-AID PROCEDURES

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.

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FIRE AND EXPLOSION HAZARD DATA

Flash Point: 40°C closed cup

(Acetic Acid)

Auto Ignition Temperature: 427°C

(Acetic Acid)

Flammable Limits In Air: 4.0% - 16%

(Acetic Acid)

Fire Extinguishing Agents Recommended:

Water spray, foam CO₂ or dry chemical. Water may be used to dilute spills and reduce flammability.

Unusual Fire And Explosion Hazards:

Toxic gases and vapors may be released in a fire involving concentrated vinegars.

REACTIVITY DATA

Stability

(X) Stable

() Unstable

Hazard Polymerization

(X) Will not occur

() May occur

Incompatibility:

Contact with strong oxidizers may cause fires and will react with strong caustics to cause violent spattering and heat.

Hazardous Decomposition Products:

May produce carbon monoxide (CO) and/or carbon dioxide (CO₂).

SPILL OR LEAK PROCEDURES

If vinegar is spilled, dike to contain, ventilate area, dilute with water: may be neutralized with addition of soda ash.

Do not flush to streams or sewers.

Waste Disposal Methods

Treatment or disposal of waste generated by use of vinegar should be reviewed in terms of applicable federal, state and local laws and regulations. Users are advised to consult with appropriate regulatory agencies before discharge, treatment or disposal.

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SPECIAL PROTECTION INFORMATION

Respiratory Protection

As required to prevent exposure to concentrations which exceed the permissible level.

Ventilation

Local exhaust recommended.

Mechanical recommended.

Eyes And Face

Safety glasses or plastic face shield required.

Hands, Arms, Body

Rubber or neoprene gloves recommended.

Rubber apron or other protective equipment as required to reduce direct contact.

Other Equipment

Eye wash station, safety shower.

PHYSICAL DATA

Appearance and Odor

Appropriate color and odor for
type of vinegar

pH

2.2 @100 grain

Boiling Point

244°F

Vapor Pressure MM Hg)

11 MM

Vapor Density (Air=1)

2.1

Solubility in Water

Complete

Specific Gravity

1.01

% Volatiles by Volume

100%