

Material Safety Data Sheet



Section 1: PRODUCT AND COMPANY IDENTIFICATION

Vi-Jon Incorporated
8515 Page Avenue
Saint Louis, MO 63114

Phone: 314-427-1000
In Case of Spill Emergency Contact:
Chemtrec: 1-800-424-9300

Product Name: Citrus Orange Germ-X

Product Code: 022

Product Use: Hand Sanitizer

Issue Date: 06/06/2008

Supersedes Date: 6/20/2005

Section 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Keep out of reach of children.
Appearance/Odor: Clear orange gel with alcohol/citrus odor.

WARNING:

Flammable (ethyl alcohol and isopropyl alcohol)

Target (ethyl alcohol and isopropyl alcohol) respiratory system, skin, eyes, CNS, liver, blood and reproductive system.

Potential Health Effects: See Section 11 for more information.

Symptoms of Exposure:

Inhalation: May cause irritation of the respiratory tract.

Ingestion: May cause nausea, vomiting and diarrhea.

Eyes: May cause irritation to the eyes.

Skin: None expected.

This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

This material contains components that are considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Potential Environmental Effects: See Section 12 for more information.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS#	% by Wt.
Ethyl Alcohol	64-17-5	59%
Isopropyl Alcohol	67-64-0	3%

Section 4: FIRST AID MEASURES

Emergency first aid procedures by route of exposure:

- Inhalation:** If symptoms are experienced, remove source of contamination or move victim to fresh air. If affected person is not breathing, apply artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
- Ingestion:** Do not induce vomiting. If the material is swallowed, get medical attention or advice.
- Skin:** If irritation is experienced, flush with water. If irritation persists, get medical attention.
- Eyes:** Immediately flush eyes with water for at least 15 minutes while holding eyelids open. If symptoms persist, get medical attention.

Section 5: FIRE FIGHTING MEASURES

Flash Point: 60°F (15.2°C)

Method Used: Tag closed cup

Lower Flammable Limit: 3.3 (Volume % in air)

Upper Flammable Limit: 19.0 (Volume % in air)

Auto Ignition: (Ethyl Alcohol) 363°C

Flammability Classification: Flammable Liquid IB

Extinguishing Media: Use methods appropriate for the surrounding fire. Consider water spray or fog, carbon dioxide, dry chemical powder, or alcohol resistant foam.

Products of Combustion: Upon decomposition this product may emit carbon dioxide, carbon monoxide and/or low molecular weight hydrocarbons.

Fire Fighting Equipment/Instructions: Wear protective clothing and equipment suitable for the surrounding fire, including helmet, facemask, and self contained breathing apparatus.

NFPA Rating: Health:2 Fire: 3 Reactivity:0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: For large spills wear gloves, safety glasses and when levels exceed OSHA PEL use appropriate NIOSH approved respiratory protection. Keep unnecessary personnel away. Eliminate all sources of ignition or flammables that may come into contact with a spill of this material.

Environmental Precautions: Prevent discharge to open waters.

Method for Containment: Absorb spilled liquid in suitable non-flammable inert material such as clay, vermiculite or diatomaceous earth.

Methods for Clean-Up: Ventilate area of leak or spill. Use spark-proof tools to sweep or scrape up and containerize in approved chemical waste container. Wash spill area with water.

Section 7: HANDLING AND STORAGE

Handling: Keep away from heat, sparks and flame. Prevent contact with eyes. Avoid inhalation.

Storage: Keep the container tightly closed and in a cool, well ventilated place.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Ethyl Alcohol (64-17-5)

ACGIH: 1,000 ppm TWA
OSHA: 1,000 ppm TWA; 1,900 mg/m³ TWA

Isopropyl Alcohol (67-63-0)

ACGIH: 200 ppm TWA
OSHA: 400 ppm TWA; 980 mg/m³ TWA

Engineering Controls: Normal room ventilation is usually adequate under normal use.

Personal Protective Equipment (PPE)

Eye/Face Protection: None needed under normal use.

Skin Protection: None needed under normal use.

Respiratory Protection: None needed under normal use.

General Hygiene Considerations: None needed under normal use.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Color: Clear Orange Translucent

Odor: Alcohol/Orange Chamomile

Physical State: Gel

pH: Not Available.

Vapor Density: (Ethyl Alcohol) 1.6

Boiling Point: (Ethyl Alcohol) 78.5°C

Vapor Pressure: (Ethyl Alcohol) 57.3 hPa at 20°C

Melting Point: (Ethyl Alcohol) -114.1°C

Freezing Point: Not Available

Flash Point (see section 5)

Flammability Properties (see section 5)

Solubility (in water): Soluble

Specific Gravity @ 25°C: 0.88-0.92

Evaporation Rate: Not Available

Octanol/Water partition coefficient (K_{ow}): (Ethyl Alcohol): - 0.32

Auto-ignition temperature: (Ethyl Alcohol) 363°C

Decomposition temperature: Not Available

Section 10: STABILITY AND REACTIVITY

Stability: Stable under normal ambient temperatures 70°C (21°C)

Condition to Avoid: Avoid excessive heat or sources of ignition.

Incompatible Materials: This product reacts with strong acid, strong bases, and oxidizing agents.

Hazardous Decomposition: upon decomposition, this product evolves carbon monoxide, carbon dioxide, and/or low weight hydrocarbons.

Hazardous Reactions: Hazardous polymerization will not occur.

Section 11: TOXICOLOGY INFORMATION

ACUTE EFFECTS:

A: General Product information

Product contains ethyl alcohol and isopropyl alcohol.

B: Component Analysis LD50

Ethyl Alcohol (64-17-5)
Oral LD50 Rat: 7060 mg/kg

Isopropyl Alcohol (67-63-0)
Inhalation LC50 Rat: 72.6 mg/L/4H
Oral LD50 Rat: 4396 mg/kg
Dermal LD50 Rat: 12800 mg/kg
Dermal LD50 Rabbit: 12870 mg/kg

CHRONIC EFFECTS:

Component

Ethyl Alcohol (64-17-5)

Carcinogenicity: ACGIH A4 – Not Classifiable as a Human Carcinogen

Neurotoxicity: This product contains ethyl alcohol, a central nervous system target.

Mutagenicity: No information available for product.

Reproductive: No information available for product.

Developmental: Ethyl alcohol is a developmental toxin when consumed during pregnancy.

Target Organs: When consumed, ethyl alcohol can target the respiratory system, skin, eyes, CNS, liver, blood and reproductive system.

Isopropyl Alcohol (67-63-0)

Carcinogenicity: ACGIH A4 – Not Classifiable as a Human Carcinogen

Neurotoxicity: This product contains isopropyl alcohol, a central nervous system target.

Mutagenicity: No information available for product.

Reproductive: No information available for product.

Developmental: No information available for product.

Target Organs: skin, eyes, CNS, Kidney, Developmental and respiratory system.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: Ethyl Alcohol (64-17-5)

96 hour LC50 Oncorhynchus mykiss: 12,900 mg/L (flow-through) (30days old)
96 hour LC50 Pimephales promelas 14.2 mg/L
5 min EC50 Photobacterium phosphoreum: 35,470 mg/L
30 min EC50 Photobacterium phosphoreum: 34,634 mg/L
48 hour EC50 Daphnia magna: 9,268 mg/L
24 hour EC50 Daphnia magna: 10,800 mg/L

Ecotoxicity: Isopropyl Alcohol (67-63-0)

96 Hr EC50 Scenedesmus Subspicatus: >1000 mg/L
72 Hr EC50 Scenedesmus subspicatus:>1000 mg/L
96 Hr LC50 Pimephales promelas: 9640 mg/L [flow through]
96 Hr LC50 Pimephales promelas: 94900 mg/L [flow through] (29 days old)
96 Hr LC50 Pimephales promelas: 61200 mg/L [flow through] (31 days old)
5 min EC50 Photobacterium phosphoreum: 35390 mg/L
48 Hr EC50 Daphnia magna: 13299 mg/L

Section 13: DISPOSAL CONSIDERATIONS

Dispose of in accordance with federal, state, and local regulations.

Section 14: TRANSPORTATION INFORMATION

Shipping Name: Consumer Commodity ORM-D
Proper Shipping Name for Non-Consumer Commodity: Ethyl Alcohol Solutions, 3, UN1170, PGIII.

Section 15: REGULATORY INFORMATION

Ethyl alcohol and isopropyl alcohol, components of this product, are on the TSCA inventory.

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

This material contains ethyl alcohol a developmental toxicity when in alcoholic beverages.

The following components appear on one or more of the following state hazardous substance lists:

Component	CAS#	CA	MA	MN	NJ	PA
Isopropyl Alcohol	67-63-0	YES	YES	YES	YES	YES
Ethyl alcohol	64-17-5	YES	YES	YES	YES	YES

Section 16: Other Information

Prepared by: Vi-Jon Inc.

Disclaimer:

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