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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier		
Product Name	456AC Advanced Foaming Hand Sanitizer	
Other means of identification		
Synonyms	None	
Recommended use of the chemical	and restrictions on use	
Recommended Use	Hand sanitizer	
Uses advised against	Use only as directed.	
Details of the supplier of the safety	data sheet	
Supplier Name	Vi-Jon Inc.	
Supplier Address	Vi-Jon Inc. 8800 Page Avenue Saint Louis MO 63114 US	
Supplier Phone Number	Phone: 314-427-1000 (M-F 8am-4pm CST) Fax:3144271010	
Supplier Email	info@vijon.com	
Emergency telephone number	Chemtrec: 1-800-424-9300 (24-Hour)	



Category 2

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Flammable liquids

GHS Label elements, including precautionary statements

	Emergency Overview		
Signal word:	Danger		
Highly flammabl	e liquid and vapor		
Appearance: Colorless, Wate	Clear to Slightly Hazy, Physical state: Water-Thin Liquid er-Thin Liquid	Odor:	Alcohol
Keep away from Keep container to Ground/bond co Use explosion-p Use only non-sp Take precaution	ntainer and receiving equipment roof electrical/ ventilating/ lighting/ equipment		
Precautionary \$	Statements - Response		
Skin IF ON SKIN (or I	hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower		
Fire In case of fire: U	se CO2, dry chemical, or foam for extinction		
-	Statements - Storage entilated place. Keep cool		
	Statements - Disposal ents/container to an approved waste disposal plant		
Hazards not oth Not applicable	nerwise classified (HNOC)		
Unknown Toxic 0 % of the mixtu	ity re consists of ingredient(s) of unknown toxicity		
Other informati Toxic to aquatic PROLONGED C May cause sligh	life OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION		
Interactions with None known.	th Other Chemicals		

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%	Trade Secret
Ethyl Alcohol 70% v/v	64-17-5	50 - 100	*
Water	7732-18-5	10 - 50	*
PEG-8 Dimethicone	68937-54-2	0 - 10	*
Meadowfoamamidopropyl Betaine	Proprietary	0 - 10	*
Glyceryl Caprylate/Caprate	91744-32-0	0 - 10	*
Glycerin	56-81-5	0 - 10	*
Tocopheryl Acetate	7695-91-2	0 - 10	*
Isopropyl Myristate	110-27-0	0 - 10	*
*The exact percentage (co	ncentration) of composition has	been withheld as a trade	secret

4. FIRST AID MEASURES

First aid measures

Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Inhalation	Remove to fresh air. If breathing is difficult, (trained personnel should) give oxygen. If not breathing, give artificial respiration.
Ingestion	Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person.
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.
Most important symptoms and effe	ects both acute and delayed

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and No information available. Effects

Indication of any immediate medical attention and special treatment needed

Notes to Physician

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water spray, fog or alcohol-resistant foam. Use water spray or fog; do not use straight streams.

Unsuitable extinguishing media

CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

Vapors can form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapor explosion hazard indoors, outdoors or in sewers. Runoff to sewer may create fire or explosion hazard.

Uniform Fire Code

Flammable Liquid: I-B

Hazardous Combustion Products Carbon oxides.

Explosion Data Sensitivity to Mechanical Impact No.

Sensitivity to Static Discharge Yes.

Protective equipment and precautions for firefighters

Move containers from fire area if you can do it without risk.



	6. ACCIDENTAL RELEASE MEASURES	
Personal precautions, protective	equipment and emergency procedures	
Personal precautions	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Stop leak if you can do it without risk.	
Other Information	Water spray may reduce vapor; but may not prevent ignition in closed spaces.	
Environmental precautions		
Environmental precautions	Prevent entry into waterways, sewers, basements or confined areas.	
Methods and material for containment and cleaning up		
Methods for containment	A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.	
Methods for cleaning up	Use clean non-sparking tools to collect absorbed material. Dike far ahead of liquid spill for later disposal. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.	
	7. HANDLING AND STORAGE	
Precautions for safe handling		
Handling	Handle in accordance with good industrial hygiene and safety practice. Use personal protection equipment. Avoid contact with skin and eyes. Avoid breathing vapors or mists. Keep away from heat/sparks/open flames/hot surfaces No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions.	
Conditions for safe storage, inclu	ding any incompatibilities	
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations.	
Incompatible Products	None known based on information supplied.	

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

There is no exposure data pertaining to the Product. This section reflects exposure data pertaining to individual ingredients.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethyl Alcohol 70% v/v	STEL: 1000 ppm	TWA: 1000 ppm	IDLH: 3300 ppm 10% LEL
64-17-5		TWA: 1900 mg/m ³	TWA: 1000 ppm
		(vacated) TWA: 1000 ppm	TWA: 1900 mg/m ³
		(vacated) TWA: 1900 mg/m ³	C
Glycerin	TWA: 10 mg/m ³ mist	TWA: 15 mg/m ³ mist, total particulate	
56-81-5	-	TWA: 5 mg/m ³ mist, respirable	
		fraction	
		(vacated) TWA: 10 mg/m ³ mist, total	
		particulate	
		(vacated) TWA: 5 mg/m ³ mist,	
		respirable fraction	

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits NIOSH IDLH Immediately Dangerous to Life or Health

Other Exposure Guidelines	Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992) See section 15 for national exposure control parameters	
Appropriate engineering controls		
Engineering Measures	Showers Eyewash stations Ventilation systems	
Individual protection measures, su	ch as personal protective equipment	
Eye/face protection	Tight sealing safety goggles.	
Skin and body protection	Wear protective gloves and protective clothing. Long sleeved clothing. Chemical resistant apron. Impervious gloves. Antistatic boots.	
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.	
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.	

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical state	Water-Thin Liquid	Odor	Alashal
Appearance	Clear to Slightly Hazy, Colorless, Water-Thin Liquid	Odor	Alcohol
Color	Colorless	Odor Threshold	No information available
Property	Values	Remarks Method	
рН	UNKNOWN	None known	
Melting / freezing point	No data available	None known	
Boiling point / boiling range	No data available	None known	
Flash Point	22 C / 72 F	None known	
Evaporation Rate	No data available	None known	
Flammability (solid, gas)	No data available	None known	
Flammability Limit in Air			
Upper flammability limit	No data available		
Lower flammability limit	No data available		
Vapor pressure	No data available	None known	
Vapor density	No data available	None known	
Specific Gravity	0.879	None known	
Water Solubility	Miscible in water	None known	
Solubility in other solvents	No data available	None known	
Partition coefficient: n-octanol/wat	er0	None known	
Autoignition temperature	No data available	None known	
Decomposition temperature	No data available	None known	
Kinematic viscosity	No data available	None known	
Dynamic viscosity	No data available	None known	
Explosive properties	No data available		
Oxidizing properties	No data available		
Other Information			
Softening Point	No data available		
VOC Content (%)	No data available		
Particle Size	No data available		
Particle Size Distribution	No data available		

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization does not occur.

<u>Conditions to avoid</u> Heat, flames and sparks.

Incompatible materials None known based on information supplied.

Hazardous Decomposition Products Carbon oxides.

When used in accordance with the directions.



11. TOXICOLOGICAL INFORMATION

There is no data for this product. The information included in this section describes the potential hazards of the individual ingredients.

Information on likely routes of exposure

Product Information	
Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Ethyl Alcohol 70% v/v 64-17-5	= 7060 mg/kg (Rat)	-	= 124.7 mg/L (Rat)4 h
Water 7732-18-5	> 90 mL/kg (Rat)	-	-
Glycerin 56-81-5	= 12600 mg/kg (Rat)	> 10 g/kg (Rabbit)	> 570 mg/m³ (Rat)1 h
Isopropyl Myristate 110-27-0	> 10000 mg/kg (Rat)	= 5 g/kg (Rabbit)	> 41 mg/L (Rat)1 h

Information on toxicological effects

Symptoms

No information available.

No information available.

No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization

Mutagenic Effects

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen. Ethanol has been shown to be carcinogenic in long-term studies <u>ONLY</u> when consumed as alcoholic beverage.

Blood. Central Nervous System (CNS). Eyes. Kidney. Liver. Reproductive System.

Chemical name	ACGIH	IARC	NTP	OSHA
Ethyl Alcohol 70% v/v	A3	Group 1	Known	Х
64-17-5				
A3 - Animal Carcinogen IARC (International Age Group 1 - Carcinogenic to NTP (National Toxicolo Known - Known Carcinog	gy Program)	r)	of Labor)	
Reproductive toxicity	No informatio	n available.		
STOT - single exposure	No informatio	n available.		

STOT - repeated exposure No information available.

Chronic Toxicity No known effect based on information supplied. Carcinogenic potential is unknown.

Target Organ Effects

Aspiration Hazard

Numerical measures of toxicity Product Information

The following values are calculated based on chapter 3.1 of the GHS document

Respiratory system. Skin.

No information available.

ATEmix (oral) 11,048.00 mg/kg ATEmix (inhalation-dust/mist) 196.90 mg/l



12. ECOLOGICAL INFORMATION

There is no ecological data on the Product. The Product ingredients are expected to be safe for the environment at concentrations predicted under normal use and accidental spill scenarios. Packaging components are compatible with the conventional solid waste management practices.

Ecotoxicity

Toxic to aquatic organisms.

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods	
Disposal methods	This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).
Contaminated Packaging	Dispose of contents/containers in accordance with local regulations.
US EPA Waste Number	D001
California Hazardous Waste Codes	311

This product contains one or more substances that are listed with the State of California as a hazardous waste.

14. TRANSPORT INFORMATION

DOT	
Proper Shipping Name	CONSUMER COMMODITY
Hazard Class	ORM-D
Description	CONSUMER COMMODITY, ORM-D
Emergency Response Guide Number	127
TDG	
UN-No.	UN1170
Proper Shipping Name	ETHANOL SOLUTION
Hazard Class	3
Packing Group	II
Description	UN1170, ETHANOL SOLUTION, 3, II
MEX	
UN-No.	UN1170
Proper Shipping Name	ETHANOL SOLUTION
Hazard Class	3
Packing Group	II
Description	UN1170, ETHANOL SOLUTION, 3, II
ICAO	
UN-No.	UN1170
Proper Shipping Name	ETHANOL SOLUTION
Hazard Class	3
Packing Group	11
Description	UN1170, ETHANOL SOLUTION, 3, II



IATA UN-No. Proper Shipping Name Hazard Class Packing Group ERG Code Description	UN1170 ETHANOL SOLUTION 3 II 3L UN1170, ETHANOL SOLUTION, 3, II
IMDG/IMO UN-No. Proper Shipping Name Hazard Class Packing Group EmS-No. Description	UN1170 ETHANOL SOLUTION 3 II F-E, S-D UN1170, ETHANOL SOLUTION, 3, II, (22°C C.C.)
<u>RID</u> UN-No. Proper Shipping Name Hazard Class Packing Group Classification code Description	UN1170 ETHANOL SOLUTION 3 II F1 UN1170, ETHANOL SOLUTION, 3, II
ADR UN-No. Proper Shipping Name Hazard Class Packing Group Classification code Tunnel restriction code Description	UN1170 ETHANOL SOLUTION 3 II F1 (D/E) UN1170, ETHANOL SOLUTION, 3, II, (D/E)
ADN_ UN-No. Proper Shipping Name Hazard Class Packing Group Classification code Special Provisions Description Hazard Labels Limited Quantity Ventilation	UN1170 ETHANOL SOLUTION 3 II F1 144, 601 UN1170, ETHANOL SOLUTION, 3, II 3 1 L VE01

15. REGULATORY INFORMATION

International Inventories

TSCA	
DSL	
IECSC	

Not determined Not determined

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory **DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65 - NONE

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Ethyl Alcohol 70% v/v 64-17-5	Х	Х	Х		Х
Glycerin 56-81-5	Х	Х	Х	Х	

International Regulations

Mexico

National occupational exposure limits

Chemical name	Carcinogen Status	Exposure Limits
Ethyl Alcohol 70% v/v		Mexico: TWA 1000 ppm
		Mexico: TWA 1900 mg/m ³
Glycerin	-	10mg/m ³ (mist) TWA

Mexico - Occupational Exposure Limits - Carcinogens

Canada WHMIS Hazard Class Not determined



16. OTHER INFORMATION

NFPA	Health Hazards 1 Flammability 3 Instability 0 Physical and Chemical Hazards -
HMIS	N/A Health Hazards 1 Flammability 3 Physical Hazard 0 Personal Protection X
Prepared By Issuing Date	Product Stewardship 23 British American Blvd. Latham, NY 12110 1-800-572-6501 January 26, 2017
Revision Date	August 21, 2017
Revision Note	Update to ingredient CAS number (Section 3).

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Approved and Updated by Vi-Jon, Inc.

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End of Safety Data Sheet

