



VI·JON[®] Safety Data Sheet

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

Product identifier

Product Name: Isopropyl Alcohol 70%
Item Number: 452AA

Other means of identification

Synonyms: None

Recommended use of the chemical and restrictions on use

Recommended Use: First Aid
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: 314-427-1010
Supplier Email info@vjon.com
Emergency telephone number Chemtrec: 1-800-424-9300 (24-Hour)

2. HAZARDS IDENTIFICATION


Classification

This product contains a chemical or chemicals considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.122).

Serious eye damage/eye irritation	Category 2
Specific target organ toxicity (single exposure)	Category 3
Flammable liquids	Category 3

GHS Label elements, including precautionary statements

Emergency Overview

Signal word	Danger	
Hazard statements May cause drowsiness or dizziness Flammable liquid and vapor		
		
Appearance: Clear, Colorless, Water-thin liquid	Physical State: Water-thin liquid	Odor: Alcohol

Precautionary Statements - Prevention

Avoid breathing fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting/equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Wear protective gloves/protective clothing/eye protection/face protection
Keep cool

Precautionary Statements - Response

Specific treatment (see supplemental first aid instructions on this label)

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.

Fire

In case of fire: Use CO2, dry chemical, or foam for extinction.

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed.
Store locked up.

Product Number: 452AA
Issuing Date: July 7, 2015

Revision Date: None

Product Name: Isopropyl Alcohol 70%
Revision Number: 0

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC)

Not Applicable

Unknown Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity

Other information

Prolonged or repeated contact may dry skin and cause irritation

Interactions with Other Chemicals

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %	Trade Secret
Isopropyl Alcohol 70%	67-63-0	50-100	*
Water	7732-18-5	10-50	*

* The exact percentage (concentration) 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 applicable, and continue flushing. If symptoms persist, call a physician.

Skin Contact

In the case of skin irritation or allergic reactions see a physician.

Inhalation

Move to fresh air. If symptoms persist, call a physician.

Ingestion

Do NOT induce vomiting. Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person. Consult a physician.

Protection of First-aiders

Use personal protective equipment. Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. For personal protection see Section 8.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms/Effects

Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

Indication of any immediate medical attention and special treatment needed

Notes to Physician

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry chemical. Carbon dioxide (CO₂). Water spray. Alcohol-resistant foam.

Unsuitable Extinguishing Media

Do not use a solid water stream as it may scatter and spread fire.

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition. Risk of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations

Uniform Fire Code	Flammable Liquid: I-B Irritant: Liquid
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Hazardous Combustion Products

Carbon oxides.

Explosion Data

Sensitivity to Mechanical Impact	No
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Sensitivity to Static Discharge	Yes
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Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. 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

Ensure adequate ventilation. Use personal protective equipment. Evacuate personnel to safe areas. Refer to Section 8 Avoid contact with skin, eyes and clothing. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.

Other Information

Refer to protective measures listed in Sections 7 and 8. Ventilate the area.

Environmental precautions

Environmental Precautions

Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and material for containment and cleaning up

Methods for Containment

Prevent further leakage or spillage if safe to do so. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Stop spill from entering drains, sewers, streams, or waterways.

Methods for Cleaning Up

Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Take precautionary measures against static discharges.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists. Keep away from heat, sparks and open flame. No smoking.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. 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 Strong oxidizing agents. Acids. Chlorinated compounds.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Isopropyl Alcohol 70% 67-63-0	STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m ³ (vacated) TWA: 400 ppm (vacated) TWA: 980 mg/m ³ (vacated) STEL: 500 ppm (vacated) STEL: 1225 mg/m ³	IDLH: 2000 ppm 10% LEL TWA: 980 mg/m ³ TWA: 400 ppm STEL: 500 ppm STEL: 1225 mg/m ³

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, such as personal protective equipment

Eye/Face Protection Tightly fitting safety goggles.

Skin and Body Protection Wear protective gloves/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. Provide regular cleaning of equipment, work area and clothing. 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	Alcohol
Appearance	Clear, Colorless, Water -Thin Liquid	Odor Threshold	No information available
Color	Colorless		
<u>Property</u>	<u>Values</u>	<u>Remarks/ Method</u>	
pH	No data available	None known	
Melting/freezing point	No data available	None known	
Boiling Point/Range	No data available	None known	
Flash Point	22C / 72F	None known	
Evaporation rate	No data available	None known	
Flammability (solid, gas)	No data available	None known	
Flammability Limits 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	No data available	None known	
Water Solubility	Miscible with water	None known	
Solubility in other solvents	No data available	None known	
Partition coefficient: n-octanol/water		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		None known	
Explosive Properties	No data available		
Oxidizing Properties	No data available		
<u>Other Information</u>			
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.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Strong oxidizing agents. Acids. Chlorinated compounds.

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	May cause drowsiness and dizziness. May cause irritation of respiratory tract.
Eye Contact	May cause redness, itching, and pain. May cause temporary eye irritation.
Skin Contact	Prolonged contact may cause redness and irritation.
Ingestion	Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Isopropyl Alcohol 70% 67-63-0	= 4396 mg/kg (Rat)	= 12800 mg/kg (Rabbit)	= 16000 ppm (Rat) 8 h

Information on toxicological effects

Symptoms Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

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

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Isopropyl Alcohol 67-63-0		Group 3		X

IARC: (International Agency for Research on Cancer)
Group 3 - Not Classifiable as to Carcinogenicity in Humans
OSHA: (Occupational Safety & Health Administration)
X - Present

Reproductive Toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Chronic Toxicity None known.

Target Organ Effects Eyes. Respiratory system. Skin. Central nervous system (CNS).

Aspiration Hazard No information available.

Numerical measures of toxicity Product Information

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

ATEmix (oral)

7,020.00 mg/kg

ATEmix (dermal)

20,440.00 mg/kg (ATE)

ATEmix (inhalation-vapor)

88.81 ATEmix

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

No information available.

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

Other Adverse Effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste Disposal Methods

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261).

Contaminated Packaging

Dispose of in accordance with local regulations.

US EPA Waste Number

D001

California Hazardous Waste Codes

331

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

Chemical Name	California Hazardous Waste
Isopropyl Alcohol 70% 67-63-0	Toxic Ignitable

Product Number: 452AA
Issuing Date: July 7, 2015

Revision Date: None

Product Name: Isopropyl Alcohol 70%
Revision Number: 0

14. TRANSPORT INFORMATION

DOT
Proper Shipping Name CONSUMER COMMODITY
Hazard Class ORM-D
Description CONSUMER COMMODITY,ORM-D
Emergency Response Guide Number 129

TDG
UN-No UN1219
Proper Shipping Name ISOPROPANOL
Hazard Class 3
Packing Group II
Description UN1219,ISOPROPANOL,3,PG II

MEX
UN-No UN1219
Proper Shipping Name ISOPROPANOL
Hazard Class 3
Packing Group II
Description UN1219 ISOPROPANOL,3,II

ICAO
UN-No UN1219
Proper Shipping Name ISOPROPYL ALCOHOL
Hazard Class 3
Packing Group II
Description UN1219,ISOPROPYL ALCOHOL,3,PG II

IATA
UN-No UN1219
Proper Shipping Name ISOPROPANOL
Hazard Class 3
Packing Group II
Description UN1219,ISOPROPYL ALCOHOL,3,PG II

IMDG/IMO
UN-No UN1219
Proper Shipping Name ISOPROPANOL
Hazard Class 3
Packing Group II
EmS No. F-E, S-D
Description UN1219, ISOPROPANOL,3,PG II

RID
UN-No UN1219
Proper Shipping Name ISOPROPANOL
Hazard Class 3
Packing Group II
Classification Code F1
Description UN1219 ISOPROPANOL,3,II

ADR
UN-No UN1219
Proper Shipping Name ISOPROPANOL
Hazard Class 3
Packing Group II
Classification Code F1
Description UN1219 ISOPROPANOL,3,II

ADN
UN-No UN1219
Proper Shipping Name ISOPROPANOL
Hazard Class 3
Packing Group II
Classification Code F1
Special Provisions 601
Description UN1219 ISOPROPANOL,3,II
Limited Quantity 3
Ventilation LQ4

Product Number: 452AA
Issuing Date: July 7, 2015

Revision Date: None

Product Name: Isopropyl Alcohol 70%
Revision Number: 0

15. REGULATORY INFORMATION

International Inventories

TSCA Exempt
DSL All components are listed either on the DSL or NDSL.

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

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains 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:

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
Isopropyl Alcohol 70%	67-63-0	50-100	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any ingredients 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 ingredients regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

U.S. 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
Isopropyl Alcohol 70% 67-63-0	X	X	X	X	

International Regulations

Mexico - Grade No information available.

National occupational exposure limits

Chemical Name	Carcinogen Status	Exposure Limits
Isopropyl Alcohol 70%		Mexico: TWA 400 ppm Mexico: TWA 980 mg/m ³ Mexico: STEL 500 ppm Mexico: STEL 1225 mg/m ³

Canada

WHMIS Hazard Class

B2

D2B



Product Number: 452AA
Issuing Date: July 7, 2015

Revision Date: None

Product Name: Isopropyl Alcohol 70%
Revision Number: 0

16. OTHER INFORMATION

NFPA	Health Hazard 2	Flammability 3	Instability 0	Physical and Chemical Hazards - None Personal Protection X
HMIS	Health Hazard 2	Flammability 3	Physical Hazard 0	

Prepared By WERCS Professional Services, LLC
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Issuing Date July 7, 2015

Revision Date None

Revision Note None

General Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Approved and Updated by Vi-Jon, Inc.

Disclaimer:

The information and recommendations contained in the Safety Data Sheet (SDS) are supplied pursuant to 29 CFR 1910.1200 of the Occupational Safety and Health Standards Hazard Communication Rule. The information and recommendations set forth herein are presented in good faith and believed to be correct as of this date hereof.

Vi-Jon, however, makes no representation as to the completeness or accuracy thereof, and information is supplied upon the express condition that the persons receiving the information will be required to make their own determination as to its suitability for their purposes prior to use. In no event will Vi-Jon be responsible for any damages of any nature whatsoever resulting from the use of, reliance upon, or the misuse of this information.

No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose, or of any other nature, are made hereunder with respect to information or the product to which the information refers. The information as supplied herein is simply to be informative and intended solely to alert the user of the substance which is the subject matter of this SDS. The ultimate compliance with federal, state or local regulations concerning the use of this compound, or compliance with respect to product liability, rests solely upon the purchaser thereof.

End of Safety Data Sheet



VI·JON[®] Safety Data Sheet

for Health and Beauty Products

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

Product identifier

Product Name: Isopropyl Alcohol 99%
Item Number: 883AA

Other means of identification

Synonyms: None

Recommended use of the chemical and restrictions on use

Recommended Use: First Aid
Uses advised against: No information available

Details of the supplier of the safety data sheet

Supplier Address

Vi-Jon Inc.
8515 Page Avenue
Saint Louis
MO
63114
US
Phone:18004249300
Fax:3144271010
Contact:Paula Korman
Email:pkorman@vijon.com
Contact Phone3145921474

Emergency telephone number Chemtrec: 1-800-424-9300 (24-Hour)

2. HAZARDS IDENTIFICATION FOR INDUSTRIAL SETTING


Classification

This product contains a chemical or chemicals considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.122).

Serious eye damage/eye irritation	Category 2
Specific target organ toxicity (single exposure)	Category 3
Flammable liquids	Category 3

GHS Label elements, including precautionary statements

Emergency Overview

Signal word		Warning
	Hazard statements May cause drowsiness or dizziness Causes eye irritation Flammable liquid and vapor	
		
Appearance Clear, Colorless, Water thin liquid	Physical State Water thin liquid	Odor Alcohol

Precautionary Statements - Prevention

Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting/equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Keep cool

Precautionary Statements - Response

Specific treatment (see supplemental first aid instructions on this label)

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.

Fire

In case of fire: Use CO2, dry chemical, or foam for extinction.

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed.
Store locked up.

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC)

Not Applicable

Unknown Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity

Other information

May be harmful if swallowed

May be harmful if inhaled

Prolonged or repeated contact may dry skin and cause irritation

Interactions with Other Chemicals

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %	Trade Secret
Isopropyl Alcohol 99% by volume	67-63-0	50-100	*
Water	7732-18-5	0-10	*

* The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

First aid measures

Eye Contact

In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.

Skin Contact

In the case of skin irritation or allergic reactions see a physician.

Inhalation

Move victim to fresh air. Apply artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.

Ingestion

Do NOT induce vomiting. Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person. Consult a physician.

Protection of First-aiders

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms/Effects

Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

Indication of any immediate medical attention and special treatment needed

Notes to Physician

Keep victim warm and quiet. Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Dry chemical, CO₂, water spray, fog or alcohol-resistant foam.

Unsuitable Extinguishing Media

CAUTION: This product has a very low flash point. Use of water spray when fighting fire may be inefficient. Do not use straight streams.

Specific Hazards Arising from the Chemical

Vapors may 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
Irritant: Liquid

Hazardous Combustion Products

Carbon oxides.

Explosion Data

Sensitivity to Mechanical Impact No

Sensitivity to Static Discharge Yes

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Move containers from fire area if you can do it without risk.

6. ACCIDENTAL RELEASE MEASURES FOR INDUSTRIAL SETTING

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

Soak up with inert absorbent material. Use clean non-sparking tools to collect absorbed material and transfer to properly labeled containers. Keep in suitable and closed containers for disposal.

7. HANDLING AND STORAGE FOR INDUSTRIAL SETTING

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists. Keep away from heat, sparks and open flame. No smoking.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers

Incompatible Products Strong oxidizing agents. Acids. Chlorinated compounds.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION FOR INDUSTRIAL SETTING

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Isopropyl Alcohol 67-63-0	STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m ³ (vacated) TWA: 400 ppm (vacated) TWA: 980 mg/m ³ (vacated) STEL: 500 ppm (vacated) STEL: 1225 mg/m ³	IDLH: 2000 ppm 10% LEL TWA: 980 mg/m ³ TWA: 400 ppm STEL: 500 ppm STEL: 1225 mg/m ³

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, such as personal protective equipment

Eye/Face Protection Tightly fitting safety goggles.

Skin and Body Protection Wear protective gloves/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. Provide regular cleaning of equipment, work area and clothing. 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	Alcohol
Appearance	Clear, Colorless, Water thin liquid	Odor Threshold	No information available
Color	No information available		
Property	Values	Remarks/ Method	
pH	No data available	None known	
Melting/freezing point	No data available	None known	
Boiling Point/Range	No data available	None known	
Flash Point	-11C / 12F	None known	
Evaporation rate	No data available	None known	
Flammability (solid, gas)	No data available	None known	
Flammability Limits 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	No data available	None known	
Water Solubility	Miscible with water	None known	
Solubility in other solvents	No data available	None known	
Partition coefficient: n-octanol/water		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		None known	
Explosive Properties	No data available		
Oxidizing Properties	No data available		
Other Information			
Softening Point	No data available		
VOC Content (%)	No data available		

10. STABILITY AND REACTIVITY FOR INDUSTRIAL SETTING

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.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Strong oxidizing agents. Acids. Chlorinated compounds.

Hazardous Decomposition Products

Carbon oxides.

When used in accordance with the directions.

11. TOXICOLOGICAL INFORMATION FOR INDUSTRIAL SETTING

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	May cause drowsiness and dizziness.
Eye Contact	Irritating to eyes.
Skin Contact	There is no data available for this product.
Ingestion	There is no data available for this product.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Isopropyl Alcohol 67-63-0	= 4396 mg/kg (Rat)	= 12800 mg/kg (Rabbit)	= 16000 ppm (Rat) 8 h

Information on toxicological effects

Symptoms Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

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

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Isopropyl Alcohol 67-63-0		Group 3		X

*IARC: (International Agency for Research on Cancer)
Group 3 - Not Classifiable as to Carcinogenicity in Humans
OSHA: (Occupational Safety & Health Administration)
X - Present*

Reproductive Toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Chronic Toxicity	No known effect based on information supplied.
Target Organ Effects	Eyes. Respiratory system. Skin. Central nervous system (CNS).
Aspiration Hazard	No information available.

Numerical measures of toxicity Product Information

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

ATEmix (oral)
4,440.00 mg/kg
ATEmix (dermal)
12,929.00 mg/kg (ATE)
ATEmix (inhalation-dust/mist)
16,162.00ATEmix

12. ECOLOGICAL INFORMATION FOR INDUSTRIAL SETTING

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

The environmental impact of this product has not been fully investigated.

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

Other Adverse Effects

No information available.

13. DISPOSAL CONSIDERATIONS FOR INDUSTRIAL SETTING

Waste treatment methods

Waste Disposal Methods	This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261).
Contaminated Packaging	Dispose of in accordance with local regulations.
US EPA Waste Number	D001
California Hazardous Waste Codes	212

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

Chemical Name	California Hazardous Waste
Isopropyl Alcohol 67-63-0	Toxic Ignitable

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name	CONSUMER COMMODITY
Hazard Class	ORM-D
Subsidiary Class	
Description	CONSUMER COMMODITY, ORM-D
Emergency Response Guide Number	129

TDG

UN-No	UN1219
Proper Shipping Name	ISOPROPANOL
Hazard Class	3
Packing Group	II
Description	UN1219, ISOPROPANOL, 3, II

MEX

UN-No	UN1219
Proper Shipping Name	ISOPROPANOL
Hazard Class	3
Packing Group	II
Description	UN1219 ISOPROPANOL, 3, II

ICAO

UN-No	UN1219
Proper Shipping Name	ISOPROPANOL
Hazard Class	3
Packing Group	II
Description	UN1219, ISOPROPANOL, 3, II

IATA

UN-No	UN1219
Proper Shipping Name	ISOPROPANOL

Product Number: 883AA
Issuing Date: March 4, 2014

Revision Date: None

Product Name: Isopropyl Alcohol 99%
Revision Number: 0

15. REGULATORY INFORMATION FOR INDUSTRIAL SETTING

International Inventories

TSCA Exempt
DSL All components are listed either on the DSL or NDSL.

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

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains 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:

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
Isopropyl Alcohol - 67-63-0	67-63-0	50-100	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any ingredients 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 ingredients regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

U.S. 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
Isopropyl Alcohol 67-63-0	X	X	X	X	

International Regulations

Mexico - Grade No information available.

National occupational exposure limits

Chemical Name	Carcinogen Status	Exposure Limits
Isopropyl Alcohol		Mexico: TWA 400 ppm Mexico: TWA 980 mg/m ³ Mexico: STEL 500 ppm Mexico: STEL 1225 mg/m ³

Canada

WHMIS Hazard Class

B2
D2B



Product Number: 883AA
Issuing Date: March 4, 2014

Revision Date: None

Product Name: Isopropyl Alcohol 99%
Revision Number: 0

16. OTHER INFORMATION

NFPA	Health Hazard 2	Flammability 3	Instability 0	Physical and Chemical Hazards - None Personal Protection X
HMIS	Health Hazard 2	Flammability 3	Physical Hazard 0	

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Revision Date None

Revision Note None

General Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Approved and Updated by Vi-Jon, Inc.

Disclaimer:

The information and recommendations contained in the Material Safety Data Sheet (MSDS) are supplied pursuant to 29 CFR 1910.1200 of the Occupational Safety and Health Standards Hazard Communication Rule. The information and recommendations set forth herein are presented in good faith and believed to be correct as of this date hereof.

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End of Safety Data Sheet