

PURELL® VF481™ Hand Sanitizer Gel

Version 1.1

SDS Number: 400000000475

Revision Date: 01/29/2018

SECTION 1. IDENTIFICATION

Product name : PURELL® VF481™ Hand Sanitizer Gel

Manufacturer or supplier's details

Company name of supplier : GOJO Industries, Inc.

Address : One GOJO Plaza, Suite 500
Akron, Ohio 44311

Telephone : 1 (330) 255-6000

Emergency telephone number : CHEMTREC 1-800-424-9300
CHEMTREC +1-703-527-3887: Outside USA & CANADA**Recommended use of the chemical and restrictions on use**

Recommended use : Hand Sanitizer

Restrictions on use : This is a personal care or cosmetic product that is safe for consumers and other users under normal and reasonably foreseeable use. Cosmetics and consumer products, specifically defined by regulations around the world, are exempt from the requirement of an SDS for the consumer. While this material is not considered hazardous, this SDS contains valuable information critical to the safe handling and proper use of the product for industrial workplace conditions as well as unusual and unintended exposures such as large spills. This SDS should be retained and available for employees and other users of this product. For specific intended-use guidance, please refer to the information provided on the package or instruction sheet.

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Flammable liquids : Category 3

Eye irritation : Category 2A

GHS label elements

Hazard pictograms :



Signal word : Warning


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- Hazard statements : H226 Flammable liquid and vapour.
H319 Causes serious eye irritation.
- Precautionary statements : **Prevention:**
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P280 Wear eye protection/ face protection.
Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
Storage:
P403 + P235 Store in a well-ventilated place. Keep cool.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS
Hazardous components

Chemical name	CAS-No.	Concentration (%)
Ethyl Alcohol	64-17-5	>= 50 - < 70
Isopropyl Alcohol	67-63-0	>= 1 - < 5

SECTION 4. FIRST AID MEASURES

- General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice.
- If inhaled : If inhaled, remove to fresh air.
If symptoms persist, call a physician.
- In case of skin contact : Wash with water and soap as a precaution.
Get medical attention if irritation develops and persists.
- In case of eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
If easy to do, remove contact lens, if worn.


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- Seek medical advice.
- If swallowed : If swallowed, DO NOT induce vomiting.
Rinse mouth with water.
Obtain medical attention.
- Most important symptoms and effects, both acute and delayed : Causes serious eye irritation.
- Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : Do not use a solid water stream as it may scatter and spread fire.
Cool closed containers exposed to fire with water spray.
Flash back possible over considerable distance.
May form explosive mixtures in air.
Exposure to decomposition products may be a hazard to health.
Carbon oxides
- Hazardous combustion products : Carbon oxides
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Ensure adequate ventilation.
Remove all sources of ignition.
Evacuate personnel to safe areas.
Keep people away from and upwind of spill/leak.
Material can create slippery conditions.


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- Environmental precautions : Discharge into the environment must be avoided.
Prevent further leakage or spillage if safe to do so.
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Non-sparking tools should be used.
Soak up with inert absorbent material.
Suppress (knock down) gases/vapours/mists with a water spray jet.
Keep in suitable, closed containers for disposal.
Clean contaminated floors and objects thoroughly while observing environmental regulations.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : For personal protection see section 8.
Keep away from heat and flame.
Use with local exhaust ventilation.
Avoid contact with eyes.
- Conditions for safe storage : Take measures to prevent the build up of electrostatic charge.
Keep in properly labelled containers.
Keep containers tightly closed in a dry, cool and well-ventilated place.
Store in accordance with the particular national regulations.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Ethyl Alcohol	64-17-5	TWA	1,000 ppm 1,900 mg/m ³	NIOSH REL
		TWA	1,000 ppm 1,900 mg/m ³	OSHA Z-1
		STEL	1,000 ppm	ACGIH
Isopropyl Alcohol	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
		TWA	400 ppm 980 mg/m ³	NIOSH REL
		ST	500 ppm 1,225 mg/m ³	NIOSH REL
		TWA	400 ppm 980 mg/m ³	OSHA Z-1

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Isopropyl Alcohol	67-63-0	Acetone	Urine	End of	40 mg/l	ACGIH


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				shift at end of workweek		BEI
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Personal protective equipment

- Respiratory protection : No personal respiratory protective equipment normally required.
- Hand protection
Remarks : No special protective equipment required.
- Eye protection : Wear face-shield and protective suit for abnormal processing problems.
- Skin and body protection : No special measures necessary provided product is used correctly.
- Protective measures : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
Ensure that eye flushing systems and safety showers are located close to the working place.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.
Avoid contact with eyes.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : liquid
- Colour : clear, greenish-blue
- Odour : alcohol-like
- Odour Threshold : No data available
- pH : 3.8 - 5.2, (20 °C)
- Melting point/freezing point : No data available
- Initial boiling point and boiling range : 75.00 °C
- Flash point : 26.50 °C
- Evaporation rate : No data available
- Flammability (solid, gas) : Not applicable
- Flammability (liquids) :
- Upper explosion limit : No data available

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Lower explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Density	: 0.8742 g/cm ³
Solubility(ies) Water solubility	: soluble
Partition coefficient: n- octanol/water	: Not applicable
Auto-ignition temperature	: No data available
Thermal decomposition	: The substance or mixture is not classified self-reactive.
Viscosity Viscosity, kinematic	: 80 - 600 mm ² /s (20 °C)
Explosive properties	: Not explosive
Oxidizing properties	: The substance or mixture is not classified as oxidizing.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Not classified as a reactivity hazard.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Vapours may form explosive mixture with air.
Conditions to avoid	: Heat, flames and sparks.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Inhalation
Eye contact
Skin contact

Acute toxicity

Not classified based on available information.

Components:

Ethyl Alcohol:

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Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): 124.7 mg/l
Exposure time: 4 h
Test atmosphere: vapour

Isopropyl Alcohol:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): 72.6 mg/l
Exposure time: 4 h
Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Components:**Ethyl Alcohol:**

Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation

Isopropyl Alcohol:

Species: Rabbit
Result: No skin irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

Components:**Ethyl Alcohol:**

Species: Rabbit
Result: Irritation to eyes, reversing within 21 days
Method: OECD Test Guideline 405

Isopropyl Alcohol:

Species: Rabbit
Result: Irritation to eyes, reversing within 21 days

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.
Respiratory sensitisation: Not classified based on available information.

Components:**Ethyl Alcohol:**

Test Type: Local lymph node assay (LLNA)
Exposure routes: Skin contact
Species: Mouse
Result: negative

Isopropyl Alcohol:

Test Type: Buehler Test
Exposure routes: Skin contact

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Species: Guinea pig
Method: OECD Test Guideline 406
Result: negative

Germ cell mutagenicity

Not classified based on available information.

Components:**Ethyl Alcohol:**

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Result: negative

Genotoxicity in vivo : Test Type: Rodent dominant lethal test (germ cell) (in vivo)
Test species: Mouse
Application Route: Ingestion
Result: negative

Isopropyl Alcohol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo
cytogenetic assay)
Test species: Mouse
Application Route: Intraperitoneal injection
Result: negative

Carcinogenicity

Not classified based on available information.

Components:**Isopropyl Alcohol:**

Species: Rat
Application Route: inhalation (vapour)
Exposure time: 104 weeks
Method: OECD Test Guideline 451
Result: negative

IARC No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

Components:

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Ethyl Alcohol:

Effects on fertility

: Test Type: Two-generation reproduction toxicity study
Species: Mouse
Application Route: Ingestion
Method: OECD Test Guideline 416
Result: negative

Isopropyl Alcohol:

Effects on fertility

: Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Result: negative

Effects on foetal development

: Test Type: Embryo-foetal development
Species: Rat
Application Route: Ingestion
Result: negative

STOT - single exposure

Not classified based on available information.

Components:**Isopropyl Alcohol:**

Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure

Not classified based on available information.

Repeated dose toxicity**Components:****Ethyl Alcohol:**

Species: Rat
NOAEL: 2,400 mg/kg
Application Route: Ingestion
Exposure time: 2 y

Isopropyl Alcohol:

Species: Rat
NOAEL: 5000 ppm
Application Route: inhalation (vapour)
Exposure time: 104 w
Method: OECD Test Guideline 413

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:****Ethyl Alcohol:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 1,000 mg/l


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Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1,000 mg/l
Exposure time: 48 h

Toxicity to algae : EC50 (Chlorella vulgaris (Fresh water algae)): 275 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 9.6 mg/l
Exposure time: 9 d

Toxicity to bacteria : EC50 (Photobacterium phosphoreum): 32.1 mg/l
Exposure time: 0.25 h

Isopropyl Alcohol:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 10,000 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 10,000 mg/l
Exposure time: 24 h

Toxicity to bacteria : EC50 (Pseudomonas putida): > 1,050 mg/l
Exposure time: 16 h

Persistence and degradability
Components:
Ethyl Alcohol:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 84 %
Exposure time: 20 d

Isopropyl Alcohol:

Biodegradability : Result: rapidly degradable

Bioaccumulative potential
Components:
Ethyl Alcohol:

Partition coefficient: n-octanol/water : log Pow: -0.35

Isopropyl Alcohol:

Partition coefficient: n-octanol/water : log Pow: 0.05

Mobility in soil

No data available

Other adverse effects

No data available

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Regulation	40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks	This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal methods

Waste from residues	: Dispose of in accordance with local regulations.
Contaminated packaging	: Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION
International Regulation
IATA-DGR

UN/ID No.	: UN 1987
Proper shipping name	: Alcohols, n.o.s. (Ethanol, Propan-2-ol)
Class	: 3
Packing group	: III
Packing instruction (cargo aircraft)	: 366
Packing instruction (passenger aircraft)	: 355

IMDG-Code

UN number	: UN 1987
Proper shipping name	: ALCOHOLS, N.O.S. (Ethanol, Propan-2-ol)
Class	: 3
Packing group	: III
Labels	: 3
EmS Code	: F-E, S-D
Marine pollutant	: no

National Regulations
49 CFR

UN/ID/NA number	: UN 1987
Proper shipping name	: Alcohols, n.o.s.
Class	: 3
Packing group	: III
ERG Code	: 127
Marine pollutant	: no


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SECTION 15. REGULATORY INFORMATION
EPCRA - Emergency Planning and Community Right-to-Know Act
CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Fire Hazard
Acute Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

Isopropyl Alcohol	67-63-0	3.4086 %
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Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

Ethyl Alcohol	64-17-5	65.2821 %
Isopropyl Alcohol	67-63-0	3.4086 %

This product does not contain any VOC exemptions listed under the U.S. Clean Air Act Section 450.

Clean Water Act

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations
Massachusetts Right To Know

Ethyl Alcohol	64-17-5	50 - 70 %
Isopropyl Alcohol	67-63-0	1 - 5 %

Pennsylvania Right To Know

Ethyl Alcohol	64-17-5	50 - 70 %
Water (Aqua)	7732-18-5	30 - 50 %
Isopropyl Alcohol	67-63-0	1 - 5 %

New Jersey Right To Know

Ethyl Alcohol	64-17-5	50 - 70 %
Water (Aqua)	7732-18-5	30 - 50 %
Isopropyl Alcohol	67-63-0	1 - 5 %

California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other

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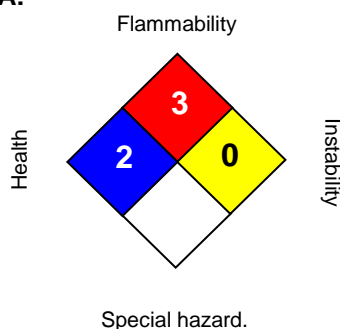
reproductive harm.

The components of this product are reported in the following inventories:

TSCA	: On TSCA Inventory
AICS	: On the inventory, or in compliance with the inventory
DSL	: On the inventory, or in compliance with the inventory
ENCS	: On the inventory, or in compliance with the inventory
ISHL	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory
NZIoC	: On the inventory, or in compliance with the inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

SECTION 16. OTHER INFORMATION
Further information
NFPA:

HMIS III:

HEALTH	2
FLAMMABILITY	3
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

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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 a 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.