

Material Safety Data Sheet



PURELL® Advanced Moisturizing Foam Hand Rub

Version	Revision Date:	MSDS Number:	Date of last issue: 12/16/2014
1.2	02/10/2015	31814-00003	Date of first issue: 11/24/2014

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : PURELL® Advanced Moisturizing Foam Hand Rub

Manufacturer or supplier's details

Company name of supplier : GOJO Industries, Inc.

Address : One GOJO Plaza, Suite 500
Akron OH 44311

Telephone : 1 (330) 255-6000

Emergency telephone : 1-800-424-9300 CHEMTREC

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

Emergency Overview

WARNING	
Appearance	liquid
Color	clear, Colorless to pale yellow
Odor	alcohol-like
Hazard Summary	Flammable liquid and vapor. Irritant Specific Target Organ Toxicity

WHMIS Regulatory status : This product, material or substance is a WHMIS controlled product per Sections 33 - 66, Part IV of the CPR.

Material Safety Data Sheet



PURELL® Advanced Moisturizing Foam Hand Rub

Version 1.2 Revision Date: 02/10/2015 MSDS Number: 31814-00003 Date of last issue: 12/16/2014
Date of first issue: 11/24/2014

Potential Health Effects

Target Organs : Central nervous system

Inhalation : May cause drowsiness or dizziness.

Skin : No significant irritation expected from a single short-term exposure.

Eyes : Causes eye irritation.

Ingestion : No significant effects expected from a single short-term exposure.

Aggravated Medical Condition : None known.

Carcinogenicity:

IARC

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

ACGIH

Confirmed animal carcinogen with unknown relevance to humans

Ethanol

64-17-5

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous ingredients

Chemical Name	CAS-No.	Concentration (%)
Ethanol	64-17-5	≥ 50 - < 70
Propan-2-ol	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.
Get medical attention if symptoms occur.

In case of skin contact : Get medical attention if symptoms occur.

Material Safety Data Sheet



PURELL® Advanced Moisturizing Foam Hand Rub

Version 1.2	Revision Date: 02/10/2015	MSDS Number: 31814-00003	Date of last issue: 12/16/2014 Date of first issue: 11/24/2014
----------------	------------------------------	-----------------------------	---

- | | |
|----------------------------|--|
| 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.
Get medical attention. |
| If swallowed | : If swallowed, DO NOT induce vomiting.
Get medical attention if symptoms occur.
Rinse mouth thoroughly with water. |
| Protection of first-aiders | : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists. |
| Notes to physician | : Treat symptomatically and supportively. |

SECTION 5. FIRE-FIGHTING MEASURES

- | | |
|--|---|
| Suitable extinguishing media | : Water spray
Alcohol-resistant foam
Dry chemical
Carbon dioxide (CO ₂) |
| Unsuitable extinguishing media | : High volume water jet |
| Specific hazards during fire fighting | : Do not use a solid water stream as it may scatter and spread fire.
Flash back possible over considerable distance.
Vapors may form explosive mixtures with air.
Exposure to combustion products may be a hazard to health. |
| Hazardous combustion products | : Carbon oxides
Silicon oxides |
| Specific extinguishing methods | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.
Remove undamaged containers from fire area if it is safe to do so.
Evacuate area. |
| Special protective equipment for fire-fighters | : 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 | : Remove all sources of ignition.
Use personal protective equipment.
Follow safe handling advice and personal protective equipment recommendations. |
|---|---|



PURELL® Advanced Moisturizing Foam Hand Rub

Version 1.2	Revision Date: 02/10/2015	MSDS Number: 31814-00003	Date of last issue: 12/16/2014 Date of first issue: 11/24/2014
----------------	------------------------------	-----------------------------	---

- | | |
|---|---|
| Environmental precautions | : Discharge into the environment must be avoided.
Prevent further leakage or spillage if safe to do so.
Prevent spreading over a wide area (e.g. by containment or oil barriers).
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/vapors/mists with a water spray jet.
For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container.
Clean up remaining materials from spill with suitable absorbent.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements. |
-

SECTION 7. HANDLING AND STORAGE

- | | |
|-----------------------------|--|
| Technical measures | : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section. |
| Local/Total ventilation | : Use with local exhaust ventilation.
Use only in an area equipped with explosion proof exhaust ventilation. |
| Advice on safe handling | : Do not get on skin or clothing.
Do not breathe vapors or spray mist.
Do not swallow.
Do not get in eyes.
Handle in accordance with good industrial hygiene and safety practice.
Non-sparking tools should be used.
Keep container tightly closed.
Keep away from heat and sources of ignition.
Take precautionary measures against static discharges.
Take care to prevent spills, waste and minimize release to the environment. |
| Conditions for safe storage | : Keep in properly labeled containers.
Keep tightly closed.
Keep in a cool, well-ventilated place.
Store in accordance with the particular national regulations.
Keep away from heat and sources of ignition. |

Material Safety Data Sheet



PURELL® Advanced Moisturizing Foam Hand Rub

Version 1.2 Revision Date: 02/10/2015 MSDS Number: 31814-00003 Date of last issue: 12/16/2014
Date of first issue: 11/24/2014

Materials to avoid : Do not store with the following product types:
Strong oxidizing agents
Organic peroxides
Flammable solids
Pyrophoric liquids
Pyrophoric solids
Self-heating substances and mixtures
Substances and mixtures which in contact with water emit flammable gases
Explosives
Gases

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Ethanol	64-17-5	TWA	1,000 ppm 1,880 mg/m ³	CA AB OEL
		STEL	1,000 ppm	CA BC OEL
		TWAEV	1,000 ppm 1,880 mg/m ³	CA QC OEL
		STEL	1,000 ppm	ACGIH
Propan-2-ol	67-63-0	TWA	200 ppm 492 mg/m ³	CA AB OEL
		STEL	400 ppm 984 mg/m ³	CA AB OEL
		TWA	200 ppm	CA BC OEL
		STEL	400 ppm	CA BC OEL
		TWAEV	400 ppm 983 mg/m ³	CA QC OEL
		STEV	500 ppm 1,230 mg/m ³	CA QC OEL
		TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
Glycerine	56-81-5	TWA	10 mg/m ³	CA BC OEL
		TWA (Respirable)	3 mg/m ³	CA BC OEL
		TWA (Mist)	10 mg/m ³	CA BC OEL
		TWA (Mist)	10 mg/m ³	CA AB OEL
		TWAEV (Mist)	10 mg/m ³	CA QC OEL
		TWA (Respirable mist)	3 mg/m ³	CA BC OEL

Material Safety Data Sheet



PURELL® Advanced Moisturizing Foam Hand Rub

Version 1.2 Revision Date: 02/10/2015 MSDS Number: 31814-00003 Date of last issue: 12/16/2014
Date of first issue: 11/24/2014

Biological occupational exposure limits

Ingredients	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Propan-2-ol	67-63-0	Acetone	Urine	End of shift at end of work-week	40 mg/l	ACGIH BEI

Engineering measures : Minimize workplace exposure concentrations.
Use only in an area equipped with explosion proof exhaust ventilation.
Use with local exhaust ventilation.

Personal protective equipment

Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Filter type : Combined particulates and organic vapor type

Hand protection

Material : Impervious gloves

Material : Flame retardant gloves

Remarks : Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Eye protection : Wear the following personal protective equipment:
Safety goggles

Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.
Wear the following personal protective equipment:
Flame retardant antistatic protective clothing.
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

Hygiene measures : Ensure that eye flushing systems and safety showers are located close to the working place.
When using do not eat, drink or smoke.
Wash contaminated clothing before re-use.

Material Safety Data Sheet



PURELL® Advanced Moisturizing Foam Hand Rub

Version 1.2	Revision Date: 02/10/2015	MSDS Number: 31814-00003	Date of last issue: 12/16/2014 Date of first issue: 11/24/2014
----------------	------------------------------	-----------------------------	---

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Color	: clear, Colorless to pale yellow
Odor	: alcohol-like
Odor Threshold	: No data available
pH	: 6 - 9
Melting point/freezing point	: No data available
Initial boiling point and boiling range	: 73.00 °C
Flash point	: 26.00 °C
Evaporation rate	: No data available
Flammability (solid, gas)	: Not applicable
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapor pressure	: No data available
Relative vapor density	: No data available
Density	: 0.0881 g/cm3
Solubility(ies) Water solubility	: soluble
Partition coefficient: n-octanol/water	: Not applicable
Autoignition temperature	: No data available
Decomposition temperature	: The substance or mixture is not classified self-reactive.
Viscosity Viscosity, kinematic	: 10 - 20 mm2/s (20 °C)
Explosive properties	: Not explosive
Oxidizing properties	: The substance or mixture is not classified as oxidizing.

SECTION 10. STABILITY AND REACTIVITY

Material Safety Data Sheet



PURELL® Advanced Moisturizing Foam Hand Rub

Version 1.2	Revision Date: 02/10/2015	MSDS Number: 31814-00003	Date of last issue: 12/16/2014 Date of first issue: 11/24/2014
----------------	------------------------------	-----------------------------	---

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

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified based on available information.

Ingredients:

Ethanol:

Acute oral toxicity	: LD50 (Rat): > 5,000 mg/kg
Acute inhalation toxicity	: LC50 (Rat): 124.7 mg/l Exposure time: 4 h Test atmosphere: vapor

Propan-2-ol:

Acute oral toxicity	: LD50 (Rat): > 5,000 mg/kg
Acute inhalation toxicity	: LC50 (Rat): 72.6 mg/l Exposure time: 4 h Test atmosphere: vapor
Acute dermal toxicity	: LD50 (Rat): > 5,000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Product:

Result: No skin irritation

Ingredients:

Ethanol:

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

Propan-2-ol:

Species: Rabbit
Result: No skin irritation



PURELL® Advanced Moisturizing Foam Hand Rub

Version 1.2	Revision Date: 02/10/2015	MSDS Number: 31814-00003	Date of last issue: 12/16/2014 Date of first issue: 11/24/2014
----------------	------------------------------	-----------------------------	---

Serious eye damage/eye irritation

Causes eye irritation.

Ingredients:

Ethanol:

Species: Rabbit

Result: Irritation to eyes, reversing within 21 days

Method: OECD Test Guideline 405

Propan-2-ol:

Species: Rabbit

Result: Irritation to eyes, reversing within 21 days

Respiratory or skin sensitization

Skin sensitization: Not classified based on available information.

Respiratory sensitization: Not classified based on available information.

Product:

Assessment: Does not cause skin sensitization.

Ingredients:

Ethanol:

Test Type: Local lymph node assay (LLNA)

Routes of exposure: Skin contact

Species: Mouse

Result: negative

Propan-2-ol:

Test Type: Buehler Test

Routes of exposure: Skin contact

Species: Guinea pig

Method: OECD Test Guideline 406

Result: negative

Germ cell mutagenicity

Not classified based on available information.

Ingredients:

Ethanol:

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) Species: Mouse Application Route: Ingestion Result: negative
----------------------	--

Propan-2-ol:

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

Material Safety Data Sheet



PURELL® Advanced Moisturizing Foam Hand Rub

Version	Revision Date:	MSDS Number:	Date of last issue: 12/16/2014
1.2	02/10/2015	31814-00003	Date of first issue: 11/24/2014

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

Carcinogenicity

Not classified based on available information.

Ingredients:

Propan-2-ol:

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

Reproductive toxicity

Not classified based on available information.

Ingredients:

Ethanol:

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

Propan-2-ol:

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

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rat
Application Route: Ingestion
Result: negative

STOT-single exposure

Short-term exposure may cause target organ effects

Ingredients:

Propan-2-ol:

Assessment: May cause drowsiness or dizziness.

STOT-repeated exposure

Not classified based on available information.



PURELL® Advanced Moisturizing Foam Hand Rub

Version 1.2	Revision Date: 02/10/2015	MSDS Number: 31814-00003	Date of last issue: 12/16/2014 Date of first issue: 11/24/2014
----------------	------------------------------	-----------------------------	---

Repeated dose toxicity

Ingredients:

Ethanol:

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

Propan-2-ol:

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

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Ingredients:

Ethanol:

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

Propan-2-ol:

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 algae	: ErC50 (Scenedesmus quadricauda (Green algae)): > 1,800 mg/l Exposure time: 8 d

Material Safety Data Sheet



PURELL® Advanced Moisturizing Foam Hand Rub

Version	Revision Date:	MSDS Number:	Date of last issue: 12/16/2014
1.2	02/10/2015	31814-00003	Date of first issue: 11/24/2014

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

Persistence and degradability

Ingredients:

Ethanol:

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

Propan-2-ol:

Biodegradability : Result: rapidly degradable

Bioaccumulative potential

Ingredients:

Ethanol:

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

Propan-2-ol:

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

Mobility in soil

No data available

Other adverse effects

No data available

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.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

International Regulation

UNRTDG

UN number : UN 1987
Proper shipping name : ALCOHOLS, N.O.S.

Material Safety Data Sheet



PURELL® Advanced Moisturizing Foam Hand Rub

Version	Revision Date:	MSDS Number:	Date of last issue: 12/16/2014
1.2	02/10/2015	31814-00003	Date of first issue: 11/24/2014

(Ethanol, Propan-2-ol)

Class	: 3
Packing group	: III
Labels	: 3

IATA-DGR

UN/ID No.	: UN 1987
Proper shipping name	: Alcohols, n.o.s. (Ethanol, Propan-2-ol)
Class	: 3
Packing group	: III
Labels	: Flammable Liquids
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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

TDG

UN number	: UN 1987
Proper shipping name	: ALCOHOLS, N.O.S. (Ethanol, Propan-2-ol)
Class	: 3
Packing group	: III
Labels	: 3
ERG Code	: 127
Marine pollutant	: no

SECTION 15. REGULATORY INFORMATION

WHMIS Classification	: B2: Flammable Liquid D2B: Toxic Material Causing Other Toxic Effects
-----------------------------	---

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

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

AICS	: All ingredients listed or exempt.
------	-------------------------------------

**PURELL® Advanced Moisturizing Foam Hand Rub**

Version	Revision Date:	MSDS Number:	Date of last issue: 12/16/2014
1.2	02/10/2015	31814-00003	Date of first issue: 11/24/2014

Inventories

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

SECTION 16. OTHER INFORMATION**Full text of other abbreviations**

ACGIH	: USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI	: ACGIH - Biological Exposure Indices (BEI)
CA AB OEL	: Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
CA BC OEL	: Canada. British Columbia OEL
CA QC OEL	: Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
ACGIH / TWA	: 8-hour, time-weighted average
ACGIH / STEL	: Short-term exposure limit
CA AB OEL / TWA	: 8-hour Occupational exposure limit
CA AB OEL / STEL	: 15-minute occupational exposure limit
CA BC OEL / TWA	: 8-hour time weighted average
CA BC OEL / STEL	: short-term exposure limit
CA QC OEL / TWAEV	: Time-weighted average exposure value
CA QC OEL / STEV	: Short-term exposure value

Sources of key data used to compile the Material Safety Data Sheet	: Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, http://echa.europa.eu/
--	---

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 is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

CA / Z8