

Vers 1.1	sion	Revision Date: 02/08/2018		DS Number: 00000000445	Date of last issue: 11/03/2016 Date of first issue: 11/03/2016		
SEC	TION 1	. IDENTIFICATION					
	Produc	et name	:	PURELL® Advan	ced Moisturizing Foam Hand Rub		
	Manuf	acturer or supplier's	deta	ails			
	Compa	any name of supplier	:	GOJO Industries,	Inc.		
Address		:	One GOJO Plaza, Suite 500 Akron, Ohio, 44311				
	Teleph	one	:	1 (330) 255-6000			
	Emerg ber	ency telephone num-	:	••••••••••	00-424-9300 703-527-3887: Outside USA & CANADA		
	Recom	nmended use of the c	hor	nical and restriction	one on use		
		imended use	:	Hand Sanitizer			
	Restric	tions on use	:	consumers and o foreseeable use. cally defined by re the requirement of rial is not conside information critical product for indust and unintended e should be retained users of this prod	I care or cosmetic product that is safe for ther users under normal and reasonably Cosmetics and consumer products, specifi- egulations around the world, are exempt from of an SDS for the consumer. While this mate- red hazardous, this SDS contains valuable at to the safe handling and proper use of the rial workplace conditions as well as unusual xposures such as large spills. This SDS d and available for employees and other uct. For specific intended-use guidance, e information provided on the package or		

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids	: Category 3
Eye irritation	: Category 2A

GHS label elements



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Hazai	rd pictograms		!
Signa	l word	: Warning	
Hazai	rd statements		le liquid and vapour. erious eye irritation.
Preca	utionary statements	and other ignition P233 Keep con P240 Ground/b P241 Use explored ment. P242 Use only P243 Take pres	ay from heat, hot surfaces, sparks, open flames on sources. No smoking. Itainer tightly closed. ond container and receiving equipment. osion-proof electrical/ ventilating/ lighting/ equip- non-sparking tools. cautionary measures against static discharge. e protection/ face protection.
		for several mini- to do. Continue P337 + P313 If tion. P370 + P378 Ir hol-resistant for Storage:	P338 IF IN EYES: Rinse cautiously with water utes. Remove contact lenses, if present and easy rinsing. eye irritation persists: Get medical advice/ atten- n case of fire: Use dry sand, dry chemical or alco- am to extinguish. tore in a well-ventilated place. Keep cool.
		Disposal:	of contents/ container to an approved waste dis-

Other hazards

The following percentage of the mixture consists of ingredient(s) with unknown acute toxicity: 1.75 %

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
Ethyl Alcohol	64-17-5	>= 50 - < 70
Isopropyl Alcohol	67-63-0	>= 1 - < 5
Glycerin	56-81-5	>= 1 - < 5

SECTION 4. FIRST AID MEASURES



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General advice		:	In the case of accident or if you feel unwell, seek medical a vice immediately. When symptoms persist or in all cases of doubt seek medic advice.				
lf inh	aled	:	If inhaled, remove to fresh air. If symptoms persist, call a physician.				
In ca	se of skin contact	:		and soap as a precaution. tion if irritation develops and persists.			
In ca	se of eye contact	:	for at least 15 mir	ove contact lens, if worn.			
lf swa	allowed	:	Do NOT induce v Rinse mouth with Obtain medical at	water.			
	important symptoms effects, both acute and /ed	:	Causes serious e	eye irritation.			
Prote	ection of first-aiders	:		ers should pay attention to self-protection mmended protective clothing			

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Use water spray, alcohol-resistant foam, dry chemical or car- bon dioxide.
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. 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.
Hazardous combustion prod- ucts	:	Carbon oxides Silicon oxides
Specific extinguishing meth- ods	:	Use extinguishing measures that are appropriate to local cir- cumstances and the surrounding environment. Use water spray to cool unopened containers.
Further information	:	Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.



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Special protective equipment for firefighters			:	: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.			
SEC	TION 6	. ACCIDENTAL RELE	AS	E MEASURES			
	Enviror	nmental precautions	:	Prevent further le Retain and dispo	e environment must be avoided. eakage or spillage if safe to do so. se of contaminated wash water. should be advised if significant spillages ned.		
		ds and materials for ment and cleaning up	:	Soak up with ine Suppress (knock spray jet. Keep in suitable, Clean contamina	ols should be used. rt absorbent material. a down) gases/vapours/mists with a water closed containers for disposal. ated floors and objects thoroughly while ob- mental regulations.		

Advice on safe handling	:	For personal protection see section 8. Keep away from heat. 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	Control parame-	Basis
		(Form of	ters / Permissible	
		exposure)	concentration	
Ethyl Alcohol	64-17-5	TWA	1,000 ppm	CA AB OEL
			1,880 mg/m3	
		STEL	1,000 ppm	CA BC OEL
		TWAEV	1,000 ppm	CA QC OEL
			1,880 mg/m3	
		STEL	1,000 ppm	ACGIH
Isopropyl Alcohol	67-63-0	TWA	200 ppm	CA AB OEL
			492 mg/m3	
		STEL	400 ppm	CA AB OEL
			984 mg/m3	
		TWA	200 ppm	CA BC OEL
		STEL	400 ppm	CA BC OEL



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			TWAEV	400 ppm 983 mg/m3	CA QC OEL
			STEV	500 ppm 1,230 mg/m3	CA QC OEL
			TWA	200 ppm	ACGIH
			STEL	400 ppm	ACGIH
Glyce	erin	56-81-5	TWA	10 mg/m3	CA BC OEL
			TWA (Res- pirable)	3 mg/m3	CA BC OEL
			TWA (Mist)	10 mg/m3	CA BC OEL
			TWA (Mist)	10 mg/m3	CA AB OEL
			TWAEV (Mist)	10 mg/m3	CA QC OEL
			TWA (Res- pirable mist)	3 mg/m3	CA BC OEL

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sam- pling time	Permissible concentra- tion	Basis
Isopropyl Alcohol	67-63-0	Acetone	Urine	End of shift at end of work- week	40 mg/l	ACGIH BEI

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 concen- tration and amount of dangerous substances, and to the spe- cific 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



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	Appear	ance	:	liquid	
	Colour		:	clear, colourless,	yellow
	Odour		:	alcohol-like	
	Odour ⁻	Threshold	:	No data available)
	рН		:	6 - 9	
	Melting	point/freezing point	:	No data available)
	Initial b range	oiling point and boiling	:	73.00 °C	
	Flash p	oint	:	26.00 °C	
	Evapor	ation rate	:	No data available)
	Flamma	ability (solid, gas)	:	Not applicable	
	Upper e	explosion limit	:	No data available)
	Lower	explosion limit	:	No data available)
	Vapour	pressure	:	No data available	
	Relative	e vapour density	:	No data available	
	Density	,	:	0.8770 g/cm3	
	Solubili Wat	ty(ies) er solubility	:	soluble	
	Partitio octanol	n coefficient: n- /water	:	No data available	•
	Auto-ig	nition temperature	:	No data available)
	Decom	position temperature	:	The substance of	r mixture is not classified self-reactive.
	Viscosi Visc	ty cosity, kinematic	:	10 - 20 mm2/s (2	0 °C)
	Explosi	ve properties	:	Not explosive	
	Oxidizir	ng properties	:	The substance of	r mixture is not classified as oxidizing.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Not classified as a reactivity hazard.	
Chemical stability	: Stable under normal conditions.	



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	Possibi tions	ility of hazardous reac-	:	Vapours may for	m explosive mixture with air.
	Conditi	ons to avoid	:	Heat, flames and	sparks.
	Incomp	patible materials	:	Strong oxidizing Flammable solid: Self-reactive sub Water-reactive s	s stances and mixtures
	Hazard produc	lous decomposition ts	:	No hazardous de	ecomposition 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:

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

Skin corrosion/irritation

Not classified based on available information.

Components:

Ethyl Alcohol:

Species: Rabbit



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Method: OECD Test Guideline 404 Result: No skin irritation

Isopropyl Alcohol:

Species: Rabbit Result: No skin irritation

Glycerin:

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

Glycerin:

Result: No eye irritation

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



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	cell mutagenicity assified based on av	ailable informatior	
Comp	oonents:		
Ethyl	Alcohol:		
Genot	toxicity in vitro	: Test Type Result: ne	: In vitro mammalian cell gene mutation test gative
Genot	toxicity in vivo	Species: I	n Route: Ingestion
Isopro	opyl Alcohol:		
Genot	toxicity in vitro	: Test Type Result: ne	: Bacterial reverse mutation assay (AMES) gative
Genot	toxicity in vivo	cytogenet Species: I	Mouse n Route: Intraperitoneal injection
Glyce	erin:		
Genot	toxicity in vitro		: In vitro mammalian cell gene mutation test DECD Test Guideline 476 gaative

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

Glycerin:

Species: Rat Application Route: Ingestion Exposure time: 2 Years Result: negative

Reproductive toxicity

Not classified based on available information.



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	Compo	onents:			
	Ethyl A	Icohol:			
Effects on fertility		:	Test Type: Two-g Species: Mouse Application Route Method: OECD To Result: negative		
	Isopro	pyl Alcohol:			
	Effects	on fertility	:	Test Type: Two-g Species: Rat Application Route Result: negative	eneration reproduction toxicity study : Ingestion
	Effects ment	on foetal develop-	:	Test Type: Embry Species: Rat Application Route Result: negative	ro-foetal development : Ingestion
	Glyceri	in:			
	Effects	on fertility	:	Test Type: Two-g Species: Rat Application Route Result: negative	eneration reproduction toxicity study : Ingestion
	Effects ment	on foetal develop-	:	Test Type: Embry Species: Rabbit Application Route Result: negative	ro-foetal development : Ingestion

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



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Isopropyl Alcohol:

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

Glycerin:

Species: Rat NOAEL: 167 mg/m3 LOAEL: 660 mg/m3 Application Route: inhalation (dust/mist/fume) Exposure time: 13 w Symptoms: Local irritation

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 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 (Chron- ic 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



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-	cerin:						
Tox	icity to fish	:	LC50 (Oncorhyno Exposure time: 9	chus mykiss (rainbow trout)): 54,000 mg/l 6 h			
	icity to daphnia and other atic invertebrates	:	: EC50 (Daphnia magna (Water flea)): 1,955 mg/l Exposure time: 48 h				
Toxi	icity to bacteria	:	NOEC (Pseudomonas putida): > 10,000 mg/l Exposure time: 16 h				
Pers	sistence and degradabil	ity					
<u>Con</u>	nponents:						
Eth	yl Alcohol:						
Bioc	degradability	:	Result: Readily b Biodegradation: Exposure time: 2	84 %			
Isop	propyl Alcohol:						
Bioc	legradability	:	Result: rapidly de	egradable			
Gly	cerin:						
Bioc	legradability	:	Result: Readily b Biodegradation: Exposure time: 1	94 %			
Bio	accumulative potential						
Con	nponents:						
Eth	yl Alcohol:						
	ition coefficient: n- nol/water	:	log Pow: -0.35				
Isop	propyl Alcohol:						
	ition coefficient: n- nol/water	:	log Pow: 0.05				
Gly	cerin:						
	ition coefficient: n- nol/water	:	log Pow: -1.76				
Mot	bility in soil						
No d	data available						
	er adverse effects data available						



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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 han- dling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION

International Regulation

IATA-DGR UN/ID No. Proper shipping name Class Packing group Packing instruction (cargo aircraft)	 UN 1987 Alcohols, n.o.s. (Ethanol, Propan-2-ol) 3 III 366
Packing instruction (passen- ger aircraft)	: 355
IMDG-Code UN number Proper shipping name Class Packing group Labels EmS Code Marine pollutant	 : UN 1987 : ALCOHOLS, N.O.S. (Ethanol, Propan-2-ol) : 3 : III : 3 : F-E, S-D : no
National Regulations	
TDG UN number Proper shipping name	: UN 1987 : ALCOHOLS, N.O.S. (Ethanol, Propan-2-ol)
Class Packing group Labels ERG Code Marine pollutant	: 3 : III : 3 : 127 : no

SECTION 15. REGULATORY INFORMATION

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

TSCA

On TSCA Inventory



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AICS		On the inventory, or in compliance with the inventory		
DSL		All components of this product are on the Canadian DSL.		
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	3	On the inventory	, or in compliance with the inventory	
IECSC	2	On the inventory	, or in compliance with the inventory	
NZIoC	:	On the inventory	, or in compliance with the inventory	

Canadian lists

No substances are subject to a Significant New Activity Notification.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR -Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN -Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory: LC50 - Lethal Concentration to 50 % of a test population: LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC -No Observed (Adverse) Effect Concentration: NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on



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the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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