

Version 1.5	n Revision Date: 02/17/2015		SDS Number: 169-00006	Date of last issue: 02/10/2015 Date of first issue: 09/26/2014
SECTI	ON 1. IDENTIFICATION			
Pı	oduct name	:	PURELL® Advan Foam	ced Green Certified Instant Hand Sanitizer
М	anufacturer or supplier's	deta	ails	
C	ompany name of supplier	:	GOJO Industries,	Inc.
Ad	ddress	:	One GOJO Plaza Akron OH 44311	, Suite 500
Te	elephone	:	1 (330) 255-6000	
Eı	mergency telephone	:	1-800-424-9300	CHEMTREC
R	ecommended use of the c	chen	nical and restriction	ons on use
R	ecommended use	:	Human hygiene b	viocidal products
R	estrictions on use	Ξ	consumers and o foreseeable use. specifically define exempt from the n While this materia contains valuable proper use of the as well as unusua spills. This SDS s employees and o intended-use guid	I care or cosmetic product that is safe for ther users under normal and reasonably Cosmetics and consumer products, ed by regulations around the world, are requirement of an SDS for the consumer. al is not considered hazardous, this SDS information critical to the safe handling and product for industrial workplace conditions al and unintended exposures such as large should be retained and available for ther users of this product. For specific dance, please refer to the information ackage or instruction sheet.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification Flammable liquids	: Category 3
Eye irritation	: Category 2A
GHS Label element Hazard pictograms	
Signal Word	: Warning



Version 1.5	Revision Date: 02/17/2015	MSDS Number: 16169-00006	Date of last issue: 02/10/2015 Date of first issue: 09/26/2014
Hazar	d Statements	: H226 Flammabl H319 Causes se	e liquid and vapor. erious eye irritation.
Preca	utionary Statements	No smoking. P233 Keep cont P241 Use explo equipment. P242 Use only r P243 Take prec P264 Wash skin P280 Wear prot Response: P303 + P361 + I all contaminated P305 + P351 + I for several minu to do. Continue P337 + P313 If attention. Storage: P403 + P235 St Disposal:	y from heat/sparks/open flames/hot surfaces ainer tightly closed. sion-proof electrical/ ventilating/ lighting/ non-sparking tools. autionary measures against static discharge. thoroughly after handling. ective gloves/ eye protection/ face protection. P353 IF ON SKIN (or hair): Take off immediately I clothing. Rinse skin with water/shower. P338 IF IN EYES: Rinse cautiously with water tes. Remove contact lenses, if present and easy rinsing. eye irritation persists: Get medical advice/ ore in a well-ventilated place. Keep cool. f contents/ container to an approved waste

Other hazards

Vapors may form explosive mixture with air.

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 medic advice. 	al
If inhaled	: If inhaled, remove to fresh air. Get medical attention if symptoms occur.	
In case of skin contact	: Wash with water and soap as a precaution. Get medical attention if symptoms occur.	



Version 1.5	Revision Date: 02/17/2015	MSDS Number: 16169-00006	Date of last issue: 02/10/2015 Date of first issue: 09/26/2014
In cas	se of eye contact	for at least 15	remove contact lens, if worn.
lf swa	allowed	Get medical a	DO NOT induce vomiting. ttention if symptoms occur. horoughly with water.
	important symptoms ffects, both acute and ed	: Causes seriou	us eye irritation.
Prote	ction of first-aiders	and use the re	onders should pay attention to self-protection, ecommended personal protective equipment ential for exposure exists.
Notes	s to physician	: Treat symptor	natically and supportively.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Water spray Alcohol-resistant foam Dry chemical Carbon dioxide (CO2)
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 prod- ucts	:	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



Versio 1.5	on	Revision Date: 02/17/2015		DS Number: 169-00006	Date of last issue: 02/10/2015 Date of first issue: 09/26/2014
р	orotecti	al precautions, ve equipment and ncy procedures	:		ective equipment. ing advice and personal protective
E	Environ	mental precautions	:	Prevent further lea Prevent spreading barriers). Retain and dispos	e environment must be avoided. akage or spillage if safe to do so. g over a wide area (e.g. by containment or oil se of contaminated wash water. should be advised if significant spillages ed.
		s and materials for ment and cleaning up	:	Suppress (knock jet. For large spills, pro- containment to kee can be pumped, so container. Clean up remaining absorbent. Local or national of disposal of this m employed in the co determine which of Sections 13 and 1	s should be used. absorbent material. down) gases/vapors/mists with a water spray rovide diking or other appropriate ep material from spreading. If diked material tore recovered material in appropriate ng materials from spill with suitable regulations may apply to releases and aterial, as well as those materials and items leanup of releases. You will need to egulations are applicable. 5 of this SDS provide information regarding tional 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 breathe vapors or spray mist. Do not swallow. Do not get in eyes. Avoid prolonged or repeated contact with skin. 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.



Version 1.5	Revision Date: 02/17/2015	MSDS Number: 16169-00006	Date of last issue: 02/10/2015 Date of first issue: 09/26/2014
Mate	rials to avoid	Store in accord Keep away from Do not store wit Strong oxidizing Organic peroxic Flammable soli Pyrophoric liqui Pyrophoric solic Self-heating sul	well-ventilated place. ance with the particular national regulations. n heat and sources of ignition. th the following product types: g agents des ds ds ds ds ds ds ds ds ds ds ds ds ds

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Ethanol	64-17-5	TWA	1,000 ppm 1,900 mg/m3	NIOSH REL
		TWA	1,000 ppm 1,900 mg/m3	OSHA Z-1
		STEL	1,000 ppm	ACGIH
Propan-2-ol	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
		TWA	400 ppm 980 mg/m3	NIOSH REL
		ST	500 ppm 1,225 mg/m3	NIOSH REL
		TWA	400 ppm 980 mg/m3	OSHA Z-1

Ingredients with workplace control parameters

Biological occupational exposure limits

Ingredients	CAS-No.	Control parameters	Biological specimen	Sam- pling time	Permissible concentratio n	Basis
Propan-2-ol	67-63-0	Acetone	Urine	End of shift at end of work- week	40 mg/l	ACGIH BEI
Engineering measures	: Min	imize workpla	ce exposure	concentrat	ions.	

Engineering measures

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



Version	Revision Date:	MSDS Number:	Date of last issue: 02/10/2015
1.5	02/17/2015	16169-00006	Date of first issue: 09/26/2014

Personal protective equipment

Respiratory protection	:	General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.
Hand protection Material		Impervious gloves
Material		Flame retardant gloves
Material	•	rano rotardan giovos
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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Color	:	clear



Ver 1.5	sion	Revision Date: 02/17/2015		DS Number: 69-00006	Date of last issue: 02/10/2015 Date of first issue: 09/26/2014
	Odor		:	alcohol-like	
	Odor T	hreshold	:	No data available	9
	рН		:	6 - 9	
	Melting	point/freezing point	:	No data available	9
	Initial b range	oiling point and boiling	:	No data available	9
	Flash p	point	:	26.00 °C	
	Evapo	ration rate	:	No data available	9
	Flamm	ability (solid, gas)	:	Not applicable	
	Upper	explosion limit	:	No data available	9
	Lower	explosion limit	:	No data available	9
	Vapor	pressure	:	No data available	9
	Relativ	e vapor density	:	No data available	9
	Density	ý	:	0.880 g/cm3	
	Solubil Wat	ity(ies) er solubility	:	soluble	
	Partitic octano	n coefficient: n- I/water	:	Not applicable	
	Autoig	nition temperature	:	No data available	9
	Decom	position temperature	:	The substance o	r mixture is not classified self-reactive.
	Viscos Visc	ity osity, kinematic	:	10 - 20 mm2/s (2	20 °C)
	Explos	ive properties	:	Not explosive	
	Oxidizi	ng properties	:	The substance o	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.	
Possibility of hazardous reac-	: Flammable liquid and vapor.	



Version 1.5	Revision Date: 02/17/2015	MSDS Number: 16169-00006	Date of last issue: 02/10/2015 Date of first issue: 09/26/2014		
tions		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	: No hazardous decomposition products are known.		

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure Inhalation Skin contact Ingestion Eye contact					
Acute toxicity					
Not classified based on availa	able information.				
Product:					
Acute oral toxicity	: Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method				
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					

Skin corrosion/irritation

Not classified based on available information.

Product:

Result: No skin irritation

Ingredients:

Ethanol: Species: Rabbit Method: OECD Test Guideline 404



Version	Revision Date:	MSDS Number:	Date of last issue: 02/10/2015
1.5	02/17/2015	16169-00006	Date of first issue: 09/26/2014

Result: No skin irritation

Propan-2-ol:

Species: Rabbit Result: No skin irritation

Serious eye damage/eye irritation

Causes serious 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)



rsion 5	Revision Date: 02/17/2015	MSDS Number: 16169-00006	Date of last issue: 02/10/2015 Date of first issue: 09/26/2014
		Result: negat	ive
	an-2-ol: toxicity in vitro	: Test Type: Ba Result: negat	acterial reverse mutation assay (AMES) ive
Geno	toxicity in vivo	 Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay) Species: Mouse Application Route: Intraperitoneal injection Result: negative 	
Carci	nogenicity		
Not cl	assified based on availa	ble information.	
Speci Applic Expos Metho	an-2-ol: es: Rat cation Route: inhalation (sure time: 104 weeks od: OECD Test Guideline t: negative		
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.	
OSH	A	No ingredient 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 ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinoger by NTP.	
-	oductive toxicity assified based on availa	ble information.	
Ethar	dients: nol: is on fertility	: Test Type: Two-generation reproduction toxicity study Species: Mouse Application Route: Ingestion Method: OECD Test Guideline 416 Result: negative	
	an-2-ol: s on fertility	: Test Type: Two-generation reproduction toxicity study Species: Rat Application Route: Ingestion Result: negative	



Version	Revision Date:	MSDS Number:
1.5	02/17/2015	16169-00006

Date of last issue: 02/10/2015 Date of first issue: 09/26/2014

Species: Rat Application Route: Ingestion Result: negative

STOT-single exposure

Not classified based on available information.

Ingredients:

Propan-2-ol: Assessment: May cause drowsiness or dizziness.

STOT-repeated exposure

Not classified based on available information.

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	: NOEC (Daphnia magna (Water flea)): 9.6 mg/l Exposure time: 9 d



ersion 5	Revision Date: 02/17/2015		SDS Number: 169-00006	Date of last issue: 02/10/2015 Date of first issue: 09/26/2014	
(Chro	nic toxicity)				
Toxici	ty to bacteria	:	EC50 (Photoba Exposure time:	cterium phosphoreum): 32.1 mg/l 0.25 h	
	an-2-ol: ity to fish	:	LC50 (Pimepha Exposure time:	ales promelas (fathead minnow)): 10,000 mg/l 96 h	
Toxicity to daphnia and other aquatic invertebrates		:	EC50 (Daphnia magna (Water flea)): > 10,000 mg/l Exposure time: 24 h		
Toxici	ty to algae	:	ErC50 (Scened mg/l Exposure time:	esmus quadricauda (Green algae)): > 1,800 8 d	
Toxici	Toxicity to bacteria		EC50 (Pseudor Exposure time:	nonas putida): > 1,050 mg/l 16 h	
Persi	stence and degradabili	ity			
	dients:				
Ethan Biode	iol: gradability	:	Result: Readily Biodegradation Exposure time:	: 84 %	
	Propan-2-ol: Biodegradability		Result: rapidly degradable		
Bioac	cumulative potential				
Ingree	dients:				
	nol: on coefficient: n- ol/water	:	log Pow: -0.35		
Partiti	an-2-ol: on coefficient: n- ol/water	:	log Pow: 0.05		
	i ty in soil Ita available				
Other	adverse effects				

SECTION 13. DISPOSAL CONSIDERATIONS

- **Disposal methods**
- Waste from residues

: Dispose of in accordance with local regulations.



ersion 5	Revision Date: 02/17/2015	MSDS Number: 16169-00006	Date of last issue: 02/10/2015 Date of first issue: 09/26/2014	
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. 		
ECTION	14. TRANSPORT INF	ORMATION		
Interr	national Regulation			
Prope	umber er shipping name ng group	: UN 1987 : ALCOHOLS, N (Ethanol, Propa : 3 : III : 3		
IATA UN/IE Prope		: UN 1987 : Alcohols, n.o.s. (Ethanol, Propa		
Label Packi aircra Packi	ng group s ng instruction (cargo	: 3 : III : Flammable Liqu : 366 : 355		
IMDG UN ni	G-Code umber er shipping name	: UN 1987 : ALCOHOLS, N (Ethanol, Propa		
Label EmS	ng group s	: 3 : III : 3 : F-E, S-D : no	an-∠-on	

Domestic regulation

49 CFR UN/ID/NA number Proper shipping name	: UN 1987 : ALCOHOLS, N.O.S.
Class	: 3
Packing group	: III



Version	Revision Date:	MSDS Number:	Date of last issue: 02/10/2015
1.5	02/17/2015	16169-00006	Date of first issue: 09/26/2014
Labels ERG (Marine		: FLAMMABLE LI : 127 : no	QUID

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

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 materian requirements of SARA Title		reporting		
SARA 313	:	: The following components are subject to reporting levels established by SARA Title III, Section 313:		ng levels		
		Propan-2-ol	67-63-0	3.4086 %		
US State Regulations						
Pennsylvania	Right To Know					
	Ethanol		64-17-5	50 - 70 %		
	Water		7732-18-5	30 - 50 %		
	Propan-2-ol		67-63-0	1 - 5 %		
New Jersey Ri	New Jersey Right To Know					
•	Ethanol		64-17-5	50 - 70 %		
	Water		7732-18-5	30 - 50 %		
	Propan-2-ol		67-63-0	1 - 5 %		
	Dimethyl Siloxar		102783-01-7	1 - 5 %		
	Dimethyl(propyl(
	oxide))hydroxy)s	siloxy-terminated				
California Prop 65		This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.				
The ingredients of this product are reported in the following inventories:AICS: All ingredients listed or exempt.						

Inventories

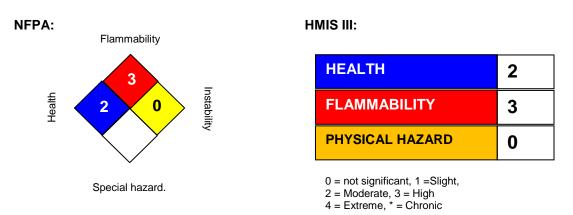


Version	Revision Date:	MSDS Number:	Date of last issue: 02/10/2015
1.5	02/17/2015	16169-00006	Date of first issue: 09/26/2014

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 ACGIH BEI NIOSH REL OSHA Z-1	:	USA. ACGIH Threshold Limit Values (TLV) ACGIH - Biological Exposure Indices (BEI) USA. NIOSH Recommended Exposure Limits USA. Occupational Exposure Limits (OSHA) - Table Z-1 Lim- its for Air Contaminants
ACGIH / TWA		8-hour, time-weighted average
ACGIH / STEL		Short-term exposure limit
NIOSH REL / TWA		Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / ST	:	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
OSHA Z-1 / TWA	:	8-hour time weighted average
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/
Revision Date	:	02/17/2015

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, in-



Version Revision Date: MSDS Number: 02/17/2015 1.5 16169-00006

Date of last issue: 02/10/2015 Date of first issue: 09/26/2014

cluding an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

US / Z8