

Version 1.1	Revision Date: 02/10/2015		DS Number: 311-00002	Date of last issue: 12/12/2014 Date of first issue: 12/12/2014
SECTION	1. IDENTIFICATION			
Produ	uct name	:	PURELL® Advan	ced Skin Nourishing Instant Hand Sanitizer
Manu	facturer or supplier's	deta	ils	
	pany name of supplier	:	GOJO Industries,	Inc.
Addre	ess	:	One GOJO Plaza Akron OH 44311	, Suite 500
Telep	hone	:	1 (330) 255-6000	
Emer	gency telephone	:	1-800-424-9300	CHEMTREC
Reco	mmended use of the o	chem	ical and restriction	ons on use
Reco	mmended use	:	Hand Sanitizer	
Restr	ictions on use	:	consumers and of foreseeable use. specifically define exempt from the r While this materia contains valuable proper use of the as well as unusua spills. This SDS s employees and of intended-use guid	care or cosmetic product that is safe for ther users under normal and reasonably Cosmetics and consumer products, d 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 hould be retained and available for ther users of this product. For specific lance, 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
Hazard Statements	: H226 Flammable liquid and vapor.



Version 1.1	Revision Date: 02/10/2015	MSDS Number: 36811-00002	Date of last issue: 12/12/2014 Date of first issue: 12/12/2014
		H319 Causes se	erious eye irritation.
Preca	utionary Statements	No smoking. P233 Keep conta P241 Use explose equipment. P242 Use only m P243 Take preca P264 Wash skin P280 Wear prota Response: P303 + P361 + F all contaminated P305 + P351 + F for several minut to do. Continue f P337 + P313 If e attention. Storage: P403 + P235 Sto Disposal:	y from heat/sparks/open flames/hot surfaces ainer tightly closed. sion-proof electrical/ ventilating/ lighting/ hon-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
Glycerine	56-81-5	>= 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	: Wash with water and soap as a precaution.	



Version 1.1	Revision Date: 02/10/2015	MSDS Number: 36811-00002	Date of last issue: 12/12/2014 Date of first issue: 12/12/2014			
		Get medical at	tention if symptoms occur.			
In cas	se 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		Get medical at	: If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur. Rinse mouth thoroughly with water.			
Most important symptoms and effects, both acute and delayed		: Causes seriou	s eye irritation.			
Prote	ction of first-aiders	and use the re	nders should pay attention to self-protection, commended personal protective equipment ntial for exposure exists.			
Notes	to physician	: Treat sympton	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
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



Version 1.1	Revision Date: 02/10/2015	MSDS Number: 36811-00002	Date of last issue: 12/12/2014 Date of first issue: 12/12/2014
prot	sonal precautions, ective equipment and ergency procedures	Use personal Follow safe ha	ources of ignition. protective equipment. andling advice and personal protective commendations.
Env	ironmental precautions	Prevent furthe Prevent sprea barriers). Retain and dis	o the environment must be avoided. r leakage or spillage if safe to do so. ding over a wide area (e.g. by containment or oil spose of contaminated wash water. es should be advised if significant spillages tained.
Methods and materials for containment and cleaning up		Soak up with i Suppress (kno jet. For large spills containment to can be pumpe container. Clean up rema absorbent. Local or nation disposal of thi employed in the determine who Sections 13 a	tools should be used. nert absorbent material. ock down) gases/vapors/mists with a water spray s, provide diking or other appropriate b keep material from spreading. If diked material ed, store recovered material in appropriate aining materials from spill with suitable hal regulations may apply to releases and s material, as well as those materials and items he cleanup of releases. You will need to ch regulations are applicable. hd 15 of this SDS provide information regarding r 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 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 1.1	Revision Date: 02/10/2015	MSDS Number: 36811-00002	Date of last issue: 12/12/2014 Date of first issue: 12/12/2014
		Store in accordar Keep away from	ell-ventilated place. nce with the particular national regulations. heat and sources of ignition.
Materi	als to avoid	Strong oxidizing a Organic peroxide Flammable solids Pyrophoric liquids Pyrophoric solids Self-heating subs	s s stances and mixtures mixtures which in contact with water emit

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients	CAS-No.	Value type	Control	Basis
Ingredients	OAO NO.	(Form of	parameters /	Dasis
		``		
		exposure)	Permissible	
			concentration	
Ethanol	64-17-5	TWA	1,000 ppm	NIOSH REL
			1,900 mg/m3	
		TWA	1,000 ppm	OSHA Z-1
			1,900 mg/m3	
		STEL	1,000 ppm	ACGIH
Propan-2-ol	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
		TWA	400 ppm	NIOSH REL
			980 mg/m3	
		ST	500 ppm	NIOSH REL
			1,225 mg/m3	
		TWA	400 ppm	OSHA Z-1
			980 mg/m3	
Glycerine	56-81-5	TWA (mist,	5 mg/m3	OSHA Z-1
-		respirable	-	
		fraction)		
		TWA (mist,	15 mg/m3	OSHA Z-1
		total dust)	, , , , , , , , , , , , , , , , , , ,	

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-	40 mg/l	ACGIH BEI



Version 1.1	Revision Date: 02/10/2015		8 Number: -00002		of last issue: of first issue:			
					week			
Engi	Engineering measures :		Minimize workplace exposure concentrations. Use only in an area equipped with explosion proof exhaust ventilation. Use with local exhaust ventilation.					
Pers	onal protective equip	ment						
Resp			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					
Ma	Material		Flame retardant gloves					
Re	Remarks		the concerne is not def the is not def or special approximation of the spe	ntration spe termined fo pplications, chemicals e glove ma	et hands again ecific to place or the product we recomme of the aforem anufacturer. W f workday.	of work. Brea . Change glov and clarifying t entioned prote	kthrough ves often! he ective	
Eye p	protection		ear the follo afety goggle		onal protective	e equipment:		
Skin	and body protection	re: pc W Fla Sł	sistance dat itential. ear the follo ame retarda in contact r	ta and an a wing perso ant antistati nust be av	ctive clothing assessment of onal protective ic protective c oided by using , boots, etc).	f the local exp e equipment: lothing.	oosure	
Hygie	Hygiene measures :		cated close hen using d	to the worl o not eat, o	systems and king place. drink or smok hing before re	е.	ers are	

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES



Vers 1.1	sion	Revision Date: 02/10/2015		DS Number: 11-00002	Date of last issue: 12/12/2014 Date of first issue: 12/12/2014
	Appear	ance	:	gel	
	Color		:	clear, colorless, y	vellow
	Odor		:	alcohol-like	
	Odor Th	nreshold	:	No data available	9
	рН		:	6.5 - 8.5	
	Melting	point/freezing point	:	No data available)
	Initial bo range	piling point and boiling	:	No data available	
	Flash p	oint	:	25 °C	
	Evapora	ation rate	:	No data available	
	Flamma	ability (solid, gas)	:	Not applicable	
	Upper e	explosion limit	:	No data available	
	Lower e	explosion limit	:	No data available)
	Vapor p	pressure	:	No data available)
	Relative	e vapor density	:	No data available)
	Density		:	0.881 g/cm3	
	Solubilit Wate	ty(ies) er solubility	:	soluble	
	Partitior octanol/	n coefficient: n- /water	:	Not applicable	
	Autoign	ition temperature	:	No data available)
	Decom	position temperature	:	The substance or	r mixture is not classified self-reactive.
	Viscosit Visco	ty osity, kinematic	:	3,500 - 23,000 m	m2/s (20 °C)
	Explosi	ve properties	:	Not explosive	
	Oxidizir	ng properties	:	The substance or	mixture is not classified as oxidizing.

SECTION 10. STABILITY AND REACTIVITY

Reactivity

: Not classified as a reactivity hazard.



Version 1.1	Revision Date: 02/10/2015	MSDS Number:Date of last issue: 12/12/201436811-00002Date of first issue: 12/12/2014		
Che	mical stability	: Stable under normal conditions.		
Possibility of hazardous reac- tions		 Flammable liquid and vapor. Vapors may form explosive mixture with air. Can react with strong oxidizing agents. 		
Cor	ditions to avoid	: Heat, flames and sparks.		
Inco	mpatible materials	: Oxidizing agents		
	ardous decomposition ducts	: No hazardous decomposition products are known.		

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes Inhalation Skin contact Ingestion Eye contact	of exposure	
Acute toxicity Not classified based on availa	able information	
Product: Acute oral toxicity	: Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method	g
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	
Glycerine: Acute oral toxicity	: LD50 (Rat): > 5,000 mg/kg	

Skin corrosion/irritation

Not classified based on available information.

Product:



VersionRevision Date:MS1.102/10/2015368

MSDS Number: 36811-00002

Date of last issue: 12/12/2014 Date of first issue: 12/12/2014

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

Glycerine:

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

Glycerine: Result: No eye irritation

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 Version

Revision Date:



Date of last issue: 12/12/2014

PURELL® Advanced Skin Nourishing Instant Hand Sanitizer

MSDS Number:

Version	Revision Date: 02/10/2015	MSDS Number: 36811-00002	Date of last issue: 12/12/2014 Date of first issue: 12/12/2014			
Germ	n cell mutagenicity					
	lassified based on ava	ailable information.				
Ingre	dients:					
Etha						
Geno	toxicity in vitro	: Test Type: In vi Result: negative	tro mammalian cell gene mutation test e			
Geno	otoxicity in vivo	Species: Mouse Application Rou	: Test Type: Rodent dominant lethal test (germ cell) (in vivo) Species: Mouse Application Route: Ingestion Result: negative			
Prop	an-2-ol:					
	toxicity in vitro	: Test Type: Bac Result: negative	terial reverse mutation assay (AMES) e			
Geno	otoxicity in vivo	cytogenetic ass Species: Mouse	e ite: Intraperitoneal injection			
Glyce	erine:					
	otoxicity in vitro		tro mammalian cell gene mutation test Test Guideline 476 e			
Carci	inogenicity					
Not c	lassified based on ava	ailable information.				
Ingre	dients:					
Spec Appli Expo	an-2-ol: ies: Rat cation Route: inhalatic sure time: 104 weeks od: OECD Test Guide					
Resu	lt: negative					
Spec Appli Expo	erine: ies: Rat cation Route: Ingestio sure time: 2 Years It: negative	n				
IARC			is product present at levels greater than or lentified as probable, possible or confirmed 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 carcin gen by OSHA.				
		10 / 17				



ersion 1	Revision Date: 02/10/2015		SDS Number: 811-00002	Date of last issue: 12/12/2014 Date of first issue: 12/12/2014
NTP		e		product present at levels greater than or tified as a known or anticipated carcinogen
-	oductive toxicity assified based on availa	ıble	information.	
Ingree	dients:			
Ethan Effect	iol: s on fertility	:	Test Type: Two-g Species: Mouse Application Route Method: OECD To Result: negative	
	a n-2-ol: s on fertility	:	Test Type: Two-g Species: Rat Application Route Result: negative	eneration reproduction toxicity study : Ingestion
Effect	s on fetal development	:	Test Type: Embry Species: Rat Application Route Result: negative	ro-fetal development : Ingestion
Glyce	erine:			
	s on fertility	:	Test Type: Two-g Species: Rat Application Route Result: negative	eneration reproduction toxicity study : Ingestion
Effect	s on fetal development	:	Test Type: Embry Species: Rabbit Application Route Result: negative	ro-fetal development : Ingestion
	-single exposure assified based on availa	ıble	information.	
Propa	dients: an-2-ol: ssment: May cause drow	/sine	ess or dizziness.	
	-repeated exposure assified based on availa	ihle	information	
	ated dose toxicity			

Repeated dose toxicity

Ingredients: Ethanol:



Version	Revision Date:	MSDS N
1.1	02/10/2015	36811-0

DS Number: 11-00002

Date of last issue: 12/12/2014 Date of first issue: 12/12/2014

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

Glycerine:

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

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	



Version 1.1	Revision Date: 02/10/2015		SDS Number: 811-00002	Date of last issue: 12/12/2014 Date of first issue: 12/12/2014
Тох	icity to algae	:	ErC50 (Scenedes mg/l Exposure time: 8	mus quadricauda (Green algae)): > 1,800 d
Тох	icity to bacteria	:	EC50 (Pseudomo Exposure time: 16	nas putida): > 1,050 mg/l S h
	cerine: iicity to fish	:	LC50 (Oncorhync Exposure time: 96	hus mykiss (rainbow trout)): 54,000 mg/l 3 h
	icity to daphnia and other atic invertebrates	:	EC50 (Daphnia m Exposure time: 48	agna (Water flea)): 1,955 mg/l 3 h
Тох	icity to bacteria	:	NOEC (Pseudom Exposure time: 16	onas putida): > 10,000 mg/l 3 h
Per	sistence and degradabili	ity		
Eth	<u>redients:</u> anol: degradability	:	Result: Readily bi Biodegradation: 8 Exposure time: 20	34 %
	pan-2-ol: degradability	:	Result: rapidly de	gradable
	cerine: degradability	:	Result: Readily bi Biodegradation: 9 Exposure time: 1	94 %
Bio	accumulative potential			
Eth Par	redients: anol: tition coefficient: n- anol/water	:	log Pow: -0.35	
Par	pan-2-ol: tition coefficient: n- anol/water	:	log Pow: 0.05	
Par	cerine: tition coefficient: n- anol/water	:	log Pow: -1.76	
	bility in soil data available			



Version 1.1	Revision Date: 02/10/2015	MSDS Number: 36811-00002	Date of last issue: 12/12/2014 Date of first issue: 12/12/2014		
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 Proper shipping name	: UN 1987 : ALCOHOLS, N.O.S.
Class Packing group Labels	(Ethanol, Propan-2-ol) : 3 : III : 3
IATA-DGR UN/ID No. Proper shipping name Class Packing group Labels Packing instruction (cargo aircraft) Packing instruction (passenger aircraft)	 UN 1987 Alcohols, n.o.s. (Ethanol, Propan-2-ol) 3 III Flammable Liquids 366 355
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

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

Not applicable for product as supplied.



Version 1.1	Revision Date: 02/10/2015	MSDS Number: 36811-00002	Date of last issue: 12/12/2014 Date of first issue: 12/12/2014
Do	mestic regulation		
UN	CFR /ID/NA number per shipping name	: UN 1987 : ALCOHOLS, N.	O.S.
Lab ER	cking group	: 3 : III : FLAMMABLE LI : 127 : no	IQUID

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 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:		
			Propan-2-ol	67-63-0	3.4086 %
US State Regulations					
Pennsylvania I	Right To Know				
	Ethanol			64-17-5	50 - 70 %
	Water			7732-18-5	20 - 30 %
	Propan-2-ol			67-63-0	1 - 5 %
	Glycerine			56-81-5	1 - 5 %
New Jersey Right To Know					
	Ethanol			64-17-5	50 - 70 %
	Water			7732-18-5	20 - 30 %
	Propan-2-ol			67-63-0	1 - 5 %
	Glycerine			56-81-5	1 - 5 %

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.



Version	Revision Date:	MSDS Number:	Date of last issue: 12/12/2014
1.1	02/10/2015	36811-00002	Date of first issue: 12/12/2014

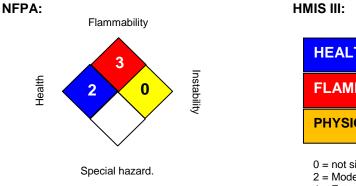
The ingredients of this product are reported in the following inventories:AICS: All ingredients listed or exempt.

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

Further information





0 = not significant, 1 =Slight,

4 = Extreme, * = Chronic

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 Agen- cy, http://echa.europa.eu/
Revision Date	:	02/10/2015

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

^{2 =} Moderate, 3 = High



Version	Revision Date:	MSDS Number:	Date of last issue: 12/12/2014
1.1	02/10/2015	36811-00002	Date of first issue: 12/12/2014

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.

US / Z8