Energy Mizer 295 Edwardia Drive Greensboro, NC 27409 Telephone: 800-627-5634

1. Identification

Product identifier	LD-416
Chemical name Synonym(s)	POLYETHYLENE GLYCOL NONYLPHENYL ETHER Alkylphenol ether; Surfonic
CAS number	9016-45-9
Chemical formula	(C2-H4-O)MULT-C15-H24-O
Other means of identification Product code Recommended use	Not available. Laundry Soap
Recommended restrictions	Professional Use Only
Chemical family	Homopolymer / nonionic surfactant
Manufacturer	Refer to Supplier
Website	http://www.energymizer.net
E-Mail	Not available.
Supplier information	
Company name	Energy Mizer
Address	295 Edwardia Dr. Greensboro, NC, USA 27409
Telephone	(800) 627 5634
Emergency phone number	(800)-627-5634

2. Hazard(s) Identification

Clear, blue liquid.

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This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Physical hazards	This mixture does not meet the classification criteria according to OSHA Hazcom 2012
Health hazards	Eye Damage/Irritation - Category 2A Skin Corrosion/Irritation - Category 2
Environmental hazards	Not currently regulated by OSHA, refer to Section 12 for additional information.
OSHA defined hazards	This mixture does not meet the classification criteria according to OSHA Hazcom 2012
Label elements	
Signal Word	WARNING!
Hazard statement(s)	Causes skin irritation. Causes eye irritation.

Precautionary statement(s)

Prevention

Wash thoroughly after handling. Wear protective gloves and eye/face protection.

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Response	
	If on skin: Wash with plenty of soap and water.
	If skin irritation occurs, get medical advice/attention.
	Take off contaminated clothing and wash it before reuse.
	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: get medical advice/attention.
Storage	None required.
Disposal	None required.
Hazard(s) not otherwise	Other hazards which do not result in classification:
Classified (HNOC)	May cause respiratory irritation. Burning produces obnoxious and toxic fumes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Supplemental Information	None.

3. Composition/information on ingredients

Soap Solution

Chemical name	Common name and synonyms	CAS number	Concentration (%)
Surfactant	Polyethylene glycol nonylphenyl ether	9016-45-9	15.50
4. First-aid measures			
Inhalation	Remove victim to fresh air and keep at re breathing is difficult, give oxygen by qualif stopped, give artificial respiration. Seek im	ied medical personnel o	only. If breathing has
Skin contact	Remove/Take off immediately all contamin running water for at least 15 to 20 minutes reuse.		
Eye contact	Flush with large amounts of water for 15 n immediately.	ninutes. Obtain medical	attention
Ingestion	Never give anything by mouth to an uncor Have victim rinse mouth with water, then g Seek immediate medical attention/advice.		
Most important symptoms and effects, both acute and delayed	Causes serious eye irritation. Symptoms r conjunctivitis. Causes skin irritation. Symp and swelling. May cause respiratory irritati choking and wheezing. Ingestion may cau vomiting and diarrhea. Prolonged or repea defatting of the skin.	toms may include redn on. Symptoms may inc se gastrointestinal irrita	ess, blistering, pain lude coughing, tion, nausea,
Indication of any immediate medical attention and special treatment needed	Treat symptomatically.		
General Information	None reported by the manufacturer.		
5. Fire-fighting measures			
Suitable extinguishing media	Use media suitable to the surrounding fire foams, carbon dioxide and dry chemical.	such as water fog or fir	ne spray, alcohol
Unsuitable extinguishing media	Do not use a solid water stream as it may	scatter and spread fire.	
Specific hazards arising from the chemical	Not considered flammable. Closed contair or flame due to a build-up of internal press		osed to excess heat
Special protective equipment and precautions for fire-fighters	Firefighters must use standard protective helmet with face shield, gloves, rubber bo		

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Fire-fighting equipment/instructions	Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Use water to cool fire-exposed containers. Prevent runoff from fire control or dilution from entering sewers, drains, drinking water supply or any natural waterway. Dike for water control.
Specific methods	Burning produces obnoxious and toxic fumes.
General fire hazards	Not flammable.
Hazardous combustion products	
	Carbon dioxide and carbon monoxide.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Methods and materials for containment and cleaning up	Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate protective equipment including self-contained breathing apparatus. Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment. Remove all sources of ignition. Ventilate area of release. Stop the spill at source if it is safe to do so. Dike for water control. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). Notify the appropriate authorities as required.
Environmental precautions	Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply.
7. Handling and storage	
Precautions for safe handling	Wear protective gloves and eye/face protection. Use only in well-ventilated areas. Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment. Avoid breathing fumes or mists. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Keep away from heat and flame. Keep away from incompatibles. Keep

Conditions for safe storage, including any incompatibilities

containers tightly closed when not in use. Empty containers retain residue (liquid and/or vapour) and can be dangerous. Store in a well-ventilated place. Keep container tightly closed. Keep away from incompatibles.Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks.

8. Exposure controls/personal protection

Occupational exposure limits	
	No exposure limits noted for the ingredient(s).
Biological limit values	
Appropriate engineering controls	Use only in well-ventilated areas. Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits.
Individual protection measures, suc	ch as personal protective equipment
Eye / face protection	Chemical splash goggles must be worn when handling this material.
Skin protection	
Hand protection	Wear protective gloves. Advice should be sought from glove suppliers.
Other	An eyewash station and safety shower should be made available in the immediate working area. Other equipment may be required depending on workplace standards.
Respiratory protection	Respiratory protection is required if the concentrations exceed the TLV. NIOSH-approved respirators are recommended. A self contained breathing apparatus should be used in emergency situations or instances where exposure levels are not known. Seek advice from respiratory protection specialists. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA Z94.4-02.

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Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Avoid breathing fumes or mists. Do not ingest. Avoid contact with skin, eyes and clothing. Do not eat, drink, smoke or use cosmetics while working with this product. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse.

9. Physical and chemical properties

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		Telephone: 800-627-563
Incompatible materials	Oxidizing agents (str	ong)
Hazardous decomposition products	None known, refer to	b hazardous combustion products in Section 5.
11. Toxicological information	on	
Information on likely routes of	exposure	
Routes of entry inhalation	YES	
Routes of entry skin & ey	e YES	
Routes of entry Ingestion	YES	
Routes of exposure skin absorption	NO	
Most important symptoms/effects, acute and delayed	include coughing, ch accumulation). Symp be delayed. Causes serious eye conjunctivitis. Cause and swelling. May ca choking and wheezin	ritation to the nose, throat and respiratory tract. Symptoms may oking and wheezing. Could result in pulmonary edema (fluid otoms of pulmonary edema (chest pain, shortness of breath) may irritation. Symptoms may include redness, pain, tearing and as skin irritation. Symptoms may include redness, blistering, pain ause respiratory irritation. Symptoms may include coughing, ng. Ingestion may cause gastrointestinal irritation, nausea, ta. Prolonged or repeated contact may cause drying, cracking and
Information on toxicological ef	-	
Acute toxicity	The calculated ATE ATE dermal = 12903	•••
	ATE oral = 8451.61	mg/kg
Components	Species	mg/kg Test Results
Components Surfactant		
Surfactant Acute		
Surfactant Acute Dermal	Species	Test Results
Surfactant Acute Dermal LD50		
Surfactant Acute Dermal LD50 inhalation	Species Rabbit	Test Results
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Surfactant Acute Dermal LD50 inhalation LC50 Oral	Species Rabbit Rat Rat	Test Results 2000 mg/kg N/Av 1310 mg/kg ion - Category 2 Causes skin irritation. Symptoms may include
Surfactant Acute Dermal LD50 inhalation LC50 Oral LD50	Species Rabbit Rat Rat Rat Skin Corrosion/Irritati redness, itching and	Test Results 2000 mg/kg N/Av 1310 mg/kg ion - Category 2 Causes skin irritation. Symptoms may include swelling. on - Category 2A Causes eye irritation. Symptoms may include
Surfactant Acute Dermal LD50 inhalation LC50 Oral LD50 Skin Corrosion/Irritation	Species Rabbit Rat Rat Skin Corrosion/Irritati redness, itching and Eye Damage/Irritati tearing, redness and	Test Results 2000 mg/kg N/Av 1310 mg/kg ion - Category 2 Causes skin irritation. Symptoms may include swelling. on - Category 2A Causes eye irritation. Symptoms may include
Surfactant Acute Dermal LD50 inhalation LC50 Oral LD50 Skin Corrosion/Irritation Serious eye damage/Irritation Respiratory or skin	Species Rabbit Rat Rat Skin Corrosion/Irritati redness, itching and Eye Damage/Irritati tearing, redness and	Test Results 2000 mg/kg N/Av 1310 mg/kg ion - Category 2 Causes skin irritation. Symptoms may include swelling. on - Category 2A Causes eye irritation. Symptoms may include discomfort. a skin or respiratory sensitizer.
Surfactant Acute Dermal LD50 inhalation LC50 Oral LD50 Skin Corrosion/Irritation Serious eye damage/Irritation Respiratory or skin sensitization	Species Rabbit Rat Rat Skin Corrosion/Irritati redness, itching and Eye Damage/Irritati tearing, redness and Not expected to be a Not expected to be a	Test Results 2000 mg/kg N/Av 1310 mg/kg ion - Category 2 Causes skin irritation. Symptoms may include swelling. on - Category 2A Causes eye irritation. Symptoms may include discomfort. a skin or respiratory sensitizer.
Surfactant Acute Dermal LD50 inhalation LC50 Oral LD50 Skin Corrosion/Irritation Serious eye damage/Irritation Respiratory or skin sensitization Germ cell mutagenicity	Species Rabbit Rat Rat Skin Corrosion/Irritati redness, itching and Eye Damage/Irritati tearing, redness and Not expected to be re Not expected to be re No components are l	Test Results 2000 mg/kg N/Av 1310 mg/kg ion - Category 2 Causes skin irritation. Symptoms may include swelling. on - Category 2A Causes eye irritation. Symptoms may include discomfort. a skin or respiratory sensitizer. hutagenic in humans.
Surfactant Acute Dermal LD50 inhalation LC50 Oral LD50 Skin Corrosion/Irritation Serious eye damage/Irritation Respiratory or skin sensitization Germ cell mutagenicity Carcinogenicity	Species Rabbit Rat Rat Skin Corrosion/Irritati redness, itching and Eye Damage/Irritati tearing, redness and Not expected to be a	Test Results 2000 mg/kg N/Av 1310 mg/kg tion - Category 2 Causes skin irritation. Symptoms may include swelling. on - Category 2A Causes eye irritation. Symptoms may include discomfort. a skin or respiratory sensitizer. nutagenic in humans. isted as carcinogens by ACGIH, IARC, OSHA or NTP.
Surfactant Acute Dermal LD50 inhalation LC50 Oral LD50 Skin Corrosion/Irritation Serious eye damage/Irritation Respiratory or skin sensitization Germ cell mutagenicity Carcinogenicity Reproductive toxicity Specific target organ toxicity -	Species Rabbit Rat Rat Skin Corrosion/Irritati redness, itching and Eye Damage/Irritati tearing, redness and Not expected to be a Not expected to be a Not expected to be a Not expected to have The substance or mix exposure.	Test Results 2000 mg/kg N/Av 1310 mg/kg ion - Category 2 Causes skin irritation. Symptoms may include swelling. on - Category 2A Causes eye irritation. Symptoms may include discomfort. a skin or respiratory sensitizer. nutagenic in humans. isted as carcinogens by ACGIH, IARC, OSHA or NTP. a other reproductive effects.

Energy Mizer 295 Edwardia Drive Greensboro, NC 27409 Telephone: 800-627-5634

Aspiration toxicity	This substan	This substance or mixture is not classified as an aspiration hazard.			
Further information	None known	or reported by the manufact	turer.		
12. Ecological information Ecotoxicity	n See the following tables for the substance's ecotoxicity data. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.				
Ecotoxicity data:					
			Toxicity to Fish		
Ingredients	CAS No	LC50 / 96h	NOEC / 21 day	M Factor	
Surfactant	9016-45-9	1.3 mg/L (Bluegill sunfish)	N/Av	None.	

Ingredients	CAS No	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 day	M Factor
Surfactant	9016-45-9	4.8 mg/L (Daphnia magna)	N/Av	None.

Ingredients	CAS No	Toxicity to Algae					
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor			
Surfactant	9016-45-9	N/Av	N/Av	None.			
Persistence and degradability			· · · ·				
	Readily biodeg	radable.					
Bioaccumulation potential	No data is availabl	e on the product itself.					
<u>Components</u>	Partition co	efficent n-octanol/ater (log	Kow) Bioconcentration	on factor (BCF)			
Surfactant (CAS 9016-45-9)		3.7	<(0.2 to <1.4			
Mobility in soil	No data is avai	able on the product itself.					
Other adverse effects							
	No data is avai	lable on the product itself.					
13. Disposal consideration							
Disposal instructions	Handle waste a	according to recommendatio	ns in Section 7.				
Local disposal regulations	Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.						
Hazardous waste code	criteria of a haz It is the respon- identification ar	ardous waste as defined un sibility of the waste generate ad disposal method. unused or waste material, c	ste in the United States, it may oder RCRA, Title 40 CFR 261. or to determine the proper was check with local, state and fede	te			
Waste from residues / unused products		-					
Contaminated packaging							

TDG

Not regulated as dangerous goods

49CFR/DOT

Not regulated as dangerous goods

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

None reported by the manufacturer. Not available.

15. Regulatory information

US Federal Information:

SARA TITLE III: Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: Immediate (Acute) health hazard . Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

Components listed below are present on the following U.S. Federal chemical lists:

Ingredients	CAS #	TSCA Inventory	CERCLA Reportable Quantity(RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Se 372, Specific To Toxic Chemical	,
Surfactant	9016-45-9	Yes	None.	None.	No	N/Ap

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard -	Yes
	Delayed Hazard -	No
	Fire Hazard -	No
	Pressure Hazard -	No
	Reactivity Hazard -	No
US state regulations		

US state regulations

The following chemicals are specifically listed by individual States:

Ingredients	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Surfactant	9016-45-9	No	N/Ap	No	No	No	No	No	No

Canadian Information:

Refer to Section 2 for a WHMIS Classification for this product. Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

International Inventories

Components listed below are present on the following International Inventory lists:

								000 021 000
Ingredients	CAS #	European EINECs	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
Surfactant	9016-45-9	500-024-6	Present	Present	(7)-172	KE-26244	Present	HSR003054; HSNO Approval: HSR006598, HSR006618 (dilution)

16. Other information, including date of preparation or last revision

Issue date	06/09/2015					
Version #	1					
Legend	ACGIH: American Conference of Governmental Industrial Hygienists					
	CA: California					
	CAS: Chemical Abstract Services					
	CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980					
	CFR: Code of Federal Regulations					
	CSA: Canadian Standards Association					
	DOT: Department of Transportation					
	EPA: Environmental Protection Agency					
	HMIS: Hazardous Materials Identification System					
	HSDB: Hazardous Substances Data Bank					
	IARC: International Agency for Research on Cancer IATA: International Air Transport Association					
	ICAO: International Civil Aviation Organisation					
	IMDG: International Maritime Dangerous Goods					
	Inh: Inhalation					
	LC: Lethal Concentration					
	LD: Lethal Dose MA: Massachusetts					
	MN: Minnesota					
	N/Ap: Not Applicable					
	N/Av: Not Available					
	NFPA: National Fire Protection Association					
	NIOSH: National Institute of Occupational Safety and Health					
	NJ: New Jersey NTP: National Toxicology Program					
	OSHA: Occupational Safety and Health Administration					
	PA: Pennsylvania					
	PEL: Permissible exposure limit					
	RCRA: Resource Conservation and Recovery Act					
	RI: Rhode Island					
	RTECS: Registry of Toxic Effects of Chemical Substances SARA: Superfund Amendments and Reauthorization Act					
	STEL: Short Term Exposure Limit					
	TDG: Canadian Transportation of Dangerous Goods Act & Regulations					
	TLV: Threshold Limit Values					
	TWA: Time Weighted Average					
	WHMIS: Workplace Hazardous Materials Identification System					
Other special considerations for ha						
:	Provide adequate information, instruction and training for operators.					
HMIS Rating :	*- Chronic hazard 0 - Minimal 1 - Slight 2 - Moderate 3 - Serious 4 - Severe					
	Health: *1 Flammability: 0 Reactivity: 0					
NFPA Rating	0 - Minimal 1 - Slight 2 - Moderate 3 - Serious 4 - Severe					
:	Health: 1 Flammability: 0 Instability: 0 Special Hazards: None.					

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Disclaimer	Prepared by: ICC The Compliance Center Inc. http://www.thecompliancecenter.com				
	This Safety Data Sheet was prepared by ICC The Compliance Center Inc. using information provided by Energy Mizer and CCOHS' Web Information Service. The information in the Safety Data Sheet is offered for your consideration and guidance when exposed to this product. ICC The Compliance Center Inc and Energy Mizer. expressly disclaim all expressed or implied warranties and assume no responsibilities for the accuracy or completeness of the data contained herein. The data in this SDS does not apply to use with any other product or in any other process.				
	This Safety Data Sheet may not be changed, or altered in any way without the expressed knowledge and permission of ICC The Compliance Center Inc. and Energy Mizer.				
Bibliography	Canadian Centre for Occupational Health and Safety, CCInfoWeb Databases, 2015 (Chempendium, RTECs, HSDB, INCHEM). European Chemicals Agency, Classification Legislation, 2015 Material Safety Data Sheet from manufacturer OECD- The Global Portal to Information on Chemical Substances - eChemPortal, 2015				