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SAFETY DATA SHEET

Classified in accordance 29 CFR 1910.1200

1. Identification

Product identifier

Product No.:	Product name:	Common name(s), synonym(s)
371163	BD E-Z Scrub™ surgical scrub brush impregnated with 3% chloroxylenol(PCMX).	No data available

Recommended restrictions

Recommended use: Skin Antiseptic
Restrictions on use: None known.

Manufacturer/Importer/Distributor Information

Manufacturer

Company Name: Becton Dickinson
Address: 9450 South State Street
Sandy, UT 84070 USA

Telephone: 1-801-565-2300 (US 24 hour)
Contact Person: Regulatory Affairs

Emergency telephone number: CHEMTREC 1 800 424 9300

2. Hazard(s) identification

Hazard Classification

Health Hazards

Skin sensitizer Category 1

Label Elements

Hazard Symbol:

Signal Word: Warning

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Hazard Statement:	H317: May cause an allergic skin reaction.
Precautionary Statements	
Prevention:	P261: Avoid breathing dust/fume/gas/mist/vapors/spray. P272: Contaminated work clothing should not be allowed out of the workplace. P280: Wear protective gloves/protective clothing/eye protection/face protection.
Response:	P302+P352: IF ON SKIN: Wash with plenty of water. P362+P364: Take off contaminated clothing and wash it before reuse. P333+P313: If skin irritation or rash occurs: Get medical advice/attention. P321: Specific treatment (see supplemental first aid instructions on this label).
Disposal:	P501: Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.
Other hazards which do not result in GHS classification:	None.

3. Composition/information on ingredients

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Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
Phenol, 4-chloro-3,5-dimethyl-	No data available.	88-04-0	3.3%
Hydrochloric acid	No data available.	7647-01-0	0.05%
Sodium hydroxide (Na(OH))	No data available.	1310-73-2	0.05%
2-Propanol	No data available.	67-63-0	0.005%
Cellulose	No data available.	9004-34-6	0.005%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Description of necessary first-aid measures

General information: If medical advice is needed, have product container or label at hand. Get medical attention if symptoms occur.

Inhalation: Provide fresh air, warmth and rest, preferably in comfortable upright sitting position. Get medical attention if symptoms persist.

Skin Contact: Wash off promptly and flush contaminated skin with water. Promptly remove clothing if soaked through and flush skin with water. Get medical attention if symptoms occur. Wash contaminated clothing before reuse.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention promptly if symptoms occur after washing.

Ingestion: If swallowed, rinse mouth with water (only if the person is conscious). Do NOT induce vomiting. Get medical attention immediately.

Personal Protection for First-aid Responders: No data available.

Most important symptoms and effects, both acute and delayed

Symptoms: Symptoms may be delayed.

Hazards: May cause an allergic skin reaction.

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Indication of immediate medical attention and special treatment needed

Treatment:	Wash off promptly and flush contaminated skin with water. Promptly remove clothing if soaked through and flush skin with water.

5. Fire-fighting measures

General Fire Hazards:	Wear self-contained breathing apparatus and protective clothing. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Use water to keep fire exposed containers cool and disperse vapors.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:	Water spray, fog, CO2, dry chemical, or alcohol resistant foam.
Unsuitable extinguishing media:	Avoid water in straight hose stream; will scatter and spread fire.
Special hazards arising from the substance or mixture:	Fire or excessive heat may produce hazardous decomposition products.

Special protective equipment and precautions for firefighters

Special fire fighting procedures:	No unusual fire or explosion hazards noted.
Special protective equipment for fire-fighters:	Wear self-contained breathing apparatus and protective clothing.Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	See Section 8 of the SDS for Personal Protective Equipment. Ensure suitable personal protection (including respiratory protection) during removal of spillages in a confined area. Contact local authorities in case of spillage to drain/aquatic environment.
Accidental release measures:	No data available.
Methods and material for containment and cleaning up:	Stop leak if possible without any risk. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Collect for salvage or disposal. Prevent runoff from entering drains, sewers, or streams. Report spills as required to appropriate authorities. See Section 8 of the SDS for Personal Protective Equipment. For waste disposal, see section 13 of the SDS.
Environmental Precautions:	Avoid release to the environment.

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7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation): Adequate ventilation should be provided whenever the material is heated or mists are generated.

Safe handling advice: Wash promptly with soap and water if skin becomes contaminated. When using do not eat, drink or smoke. Read and follow manufacturer's recommendations. Use personal protective equipment as required.

Contact avoidance measures: No data available.

Storage

Safe storage conditions: Store at room temperature (20-25°C). Avoid excessive heat (40°C). Store isolated from oxidizers, ignition sources, and explosives. Consult local fire codes for additional storage information. Store separated from: Oxidizing material.Store in tightly closed original container in a dry, cool and well-ventilated place.

Safe packaging materials: No data available.

8. Exposure controls/personal protection

Control Parameters
Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values		Source
Hydrochloric acid	Ceiling	5 ppm	7 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	Ceiling	5 ppm	7 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended
	ST ESL		130 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
	AN ESL		5.7 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
	AN ESL		8.4 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
	ST ESL		190 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
	Ceiling	5 ppm	7 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as

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				amended
	Ceiling	2 ppm		US. ACGIH Threshold Limit Values, as amended
	Ceil_Time	5 ppm	7 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	Ceiling	5 ppm	7 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	IDLH	50 ppm		US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended
Sodium hydroxide (Na(OH))	Ceiling		2 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	Ceiling		2 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended
Sodium hydroxide (Na(OH)) - Particulate.	AN ESL		2 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
	ST ESL		20 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
Sodium hydroxide (Na(OH))	Ceiling		2 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended
	Ceiling		2 mg/m3	US. ACGIH Threshold Limit Values, as amended
	Ceil_Time		2 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	PEL		2 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	IDLH		10 mg/m3	US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended
2-Propanol	TWA	400 ppm	980 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	STEL	500 ppm	1,225 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	TWA	400 ppm	980 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A
	STEL	500 ppm	1,225 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A
	AN ESL		200 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
	ST ESL		2,000 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
	AN ESL		492 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
	ST ESL		4,920 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
	TWA PEL	400 ppm	980 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants
	STEL	500 ppm	1,225	US. California Code of Regulations, Title 8,

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			mg/m3	Section 5155. Airborne Contaminants
	TWA	200 ppm		US. ACGIH Threshold Limit Values, as amended
	STEL	400 ppm		US. ACGIH Threshold Limit Values, as amended
	STEL	500 ppm	1,225 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	REL	400 ppm	980 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	IDLH	2,000 ppm		US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended
	LEL		2.0 %	US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended
	PEL	400 ppm	980 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Cellulose - Respirable fraction.	TWA		5 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
Cellulose - Total dust.	TWA		15 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
Cellulose - Respirable fraction.	TWA		5 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended
Cellulose - Total dust.	TWA		15 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended
Cellulose - Particulate.	ST ESL		50 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
	AN ESL		5 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
Cellulose	TWA		10 mg/m3	US. ACGIH Threshold Limit Values, as amended
Cellulose - Respirable.	REL		5 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Cellulose - Total	REL		10 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Cellulose - Respirable fraction.	PEL		5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Cellulose - Total dust.	PEL		15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Cellulose - Respirable fraction.	TWA PEL		5 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended
Cellulose - Total dust.	TWA PEL		10 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended
Cellulose - Respirable fraction.	TWA		5 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended
	TWA		15 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended
Cellulose - Total dust.	TWA		15 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000), as

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			amended
	TWA	50 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended

Please refer to the latest edition of the appropriate source text and consult an industrial hygienist or similar professional, or local agencies, for further information.

Biological Limit Values

Chemical name	Parameters / Sampling Time	Exposure Limit Values	Source

Appropriate Engineering Controls Adequate ventilation should be provided whenever the material is heated or mists are generated.

Individual protection measures, such as personal protective equipment

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin Protection

Hand Protection: Material: Nitrile glovesMaterial: Use suitable protective gloves if risk of skin contact.

Skin and Body Protection: Wear appropriate clothing to prevent repeated or prolonged skin contact.

Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Hygiene measures: Do not eat, drink or smoke when using the product. Wash promptly if skin becomes contaminated. Wash at the end of each work shift and before eating, smoking and using the toilet. Avoid contact with skin.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance

Physical state: liquid
Form: liquid
Color: Milky white

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Odor:	Characteristic
Odor Threshold:	No data available.
Freezing point:	32 °F/-0.00 °C
Boiling Point:	212 °F/100 °C
Flammability:	No data available.
Upper/lower limit on flammability or explosive limits	
Explosive limit - upper:	Not determined.
Explosive limit - lower:	Not determined.
Flash Point:	Not applicable
Self Ignition Temperature:	Product is not self-igniting.
Decomposition Temperature:	No data available.
pH:	4.5
Viscosity	
Dynamic viscosity:	Not determined.
Kinematic viscosity:	15,000 mm2/s (73 °F/23 °C)
Flow Time:	No data available.
Solubility(ies)	
Solubility in Water:	Soluble
Solubility (other):	The product is soluble in water.
Partition coefficient (n-octanol/water):	No data available.
Vapor pressure:	23 kPa
Relative density:	Not determined.
Density:	Not determined.
Bulk density:	No data available.
Relative vapor density:	No data available.

Particle characteristics	
Particle Size:	No data available.
Particle Size Distribution:	No data available.
Specific surface area:	No data available.
Surface charge/Zeta potential:	No data available.
Shape:	No data available.
Crystallinity:	No data available.
Surface treatment:	No data available.

Other information

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Metal Corrosion:	Not Evaluated

10. Stability and reactivity

Reactivity:	Stable
Chemical Stability:	No data available.
Possibility of hazardous reactions:	None under normal conditions.
Conditions to avoid:	Avoid exposure to high temperatures or direct sunlight.
Incompatible Materials:	Strong oxidizing agents.
Hazardous Decomposition Products:	By heating and fire, harmful vapors/gases may be formed.

11. Toxicological information

General information: May cause allergic skin reaction based on human experience.

Information on toxicological effects

Inhalation:	Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
Skin Contact:	Prolonged or repeated contact may cause skin sensitization in susceptible individuals.
Eye contact:	Avoid contact with eyes.
Ingestion:	Ingestion may cause irritation and malaise.

Information on likely routes of exposure

Acute toxicity (list all possible routes of exposure)

Oral

Product:	ATEmix: 12,484.09 mg/kg
Components:	
Phenol, 4-chloro-3,5-dimethyl-	LD 50 (Rat): 3,830 mg/kg
Hydrochloric acid	No data available.
Sodium hydroxide (Na(OH))	No data available.
2-Propanol	LD 50 (Rat): 5,045 mg/kg

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Cellulose	No data available.

Dermal

Product:	ATEmix: 31,111.32 mg/kg
Components:	
Phenol, 4-chloro-3,5-dimethyl-	LD 50 (Rat): > 2.0 g/kg
Hydrochloric acid	LD 50 (Mouse): 1,449 mg/kg
Sodium hydroxide (Na(OH))	No data available.
2-Propanol	LD 50 (Rabbit): 12,800 mg/kg
Cellulose	No data available.

Inhalation

Product:	No data available.
Components:	
Phenol, 4-chloro-3,5-dimethyl-	No data available.
Hydrochloric acid	LC 50 (Rat, 4 h): 1405 ppm LC 50 (Rat, 1 h): 2810 ppm LOAEL (Guinea pig, 30 min): <= 320 ppm Gas; 2 = reliable with restrictions; Experimental result, Supporting study, Gas LC 50 (Mouse, 5 min): 2644 ppm Inhalation; 2 = reliable with restrictions; Experimental result, Supporting study, Inhalation LC 50 (Rat, 5 min): 40989 ppm Inhalation; 2 = reliable with restrictions; Experimental result, Key study, Inhalation LC 50 (Rat, 5 min): 4701 ppm Inhalation; 2 = reliable with restrictions; Experimental result, Key study, Inhalation LC 50 (Mouse, 5 min): 13745 ppm Inhalation; 2 = reliable with restrictions; Experimental result, Supporting study, Inhalation LC 50 (Mouse, 5 min): 3.2 mg/l Inhalation; 2 = reliable with restrictions; Experimental result, Supporting study, Inhalation LC 50 (Rat, 5 min): 8.3 mg/l Inhalation; 2 = reliable with restrictions; Experimental result, Key study, Inhalation LD (Guinea pig, 30 min): >= 1040 ppm Gas; 2 = reliable with restrictions; Experimental result, Supporting study, Gas LC 50 (Mouse, 5 min): 16.5 mg/l Inhalation; 2 = reliable with restrictions; Experimental result, Supporting study, Inhalation LC 50 (Rat, 5 min): 45.6 mg/l Inhalation; 2 = reliable with restrictions; Experimental result, Key study, Inhalation
Sodium hydroxide (Na(OH))	No data available.
2-Propanol	LC 50 (Rat, 6 h): > 10000 ppm Vapor; 1 = reliable without restrictions; Experimental result, Key study, Vapor
Cellulose	No data available.

Repeated dose toxicity

Product:	No data available.
Components:	
Phenol, 4-chloro-3,5-dimethyl-	No data available.
Hydrochloric acid	NOAEL (Mouse(Female, Male), Inhalation, 4 - 91 d): 20 ppm(m) Experimental result, Key study Inhalation

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	NOAEL (Rat(Female, Male), Inhalation, 4 - 91 d): 10 ppm(m) Experimental result, Key study Inhalation NOAEL (Rat(Female, Male), Inhalation, 4 - 91 d): 20 ppm(m) Experimental result, Key study Inhalation LOAEL (Mouse(Female, Male), Inhalation, 4 - 91 d): 50 ppm(m) Experimental result, Key study Inhalation NOAEL (Guinea pig; Monkey; Rabbit(female), Inhalation, 2 - 20 d): 0.05 mg/l Experimental result, Supporting study Inhalation
Sodium hydroxide (Na(OH))	No data available.
2-Propanol	NOAEL (Rat, Inhalation, >= 104 Weeks): 5,000 ppm(m) Experimental result, Key study Inhalation
Cellulose	No data available.

Skin Corrosion/Irritation

Product:	Causes skin irritation.
Components:	
Phenol, 4-chloro-3,5-dimethyl-	No data available.
Hydrochloric acid	No data available.
Sodium hydroxide (Na(OH))	No data available.
2-Propanol	No data available.
Cellulose	No data available.

Serious Eye Damage/Eye Irritation

Product:	Causes eye irritation.
Components:	
Phenol, 4-chloro-3,5-dimethyl-	No data available.
Hydrochloric acid	Category 1 in vivo Rabbit, 1 hrs: EU Category 1 in vivo Rabbit, 1 d: EU Category 1 in vivo Rabbit, 1 - 21 d: EU Category 1 in vivo Rabbit, 3 - 7 d: EU Category 1 in vivo Rabbit, 1 - 24 hrs: EU Category 1 in vivo Rabbit, 1 - 7 d: EU Category 1 in vivo Rabbit, 1 - 2 d: EU
Sodium hydroxide (Na(OH))	Mild irritant in vivo Rabbit, 4 d: OECD GHS Mild irritant in vivo Rabbit, 2 d: OECD GHS Mild irritant in vivo Rabbit, 1 d: OECD GHS Mild irritant in vivo Rabbit, 3 d: OECD GHS
2-Propanol	Category 2: Causes serious eye irritation in vivo Rabbit, 1 d: CLP (1272/2008)
Cellulose	No data available.

Respiratory or Skin Sensitization

Product:	Skin sensitizer
Components:	
Phenol, 4-chloro-3,5-dimethyl-	No data available.
Hydrochloric acid	No data available.

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Sodium hydroxide (Na(OH))	No data available.
2-Propanol	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Cellulose	No data available.

Carcinogenicity

Product:	No data available.
Components:	
Phenol, 4-chloro-3,5-dimethyl-	No data available.
Hydrochloric acid	No data available.
Sodium hydroxide (Na(OH))	No data available.
2-Propanol	No data available.
Cellulose	No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:
No carcinogens present or none present in regulated quantities

ACGIH: US.ACGIH Threshold Limit Values:
No carcinogens present or none present in regulated quantities

US. National Toxicology Program (NTP) Report on Carcinogens:
No carcinogens present or none present in regulated quantities

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended:
No carcinogens present or none present in regulated quantities

Germ Cell Mutagenicity

In vitro

Product:	No data available.
Components:	
Phenol, 4-chloro-3,5-dimethyl-	No data available.
Hydrochloric acid	No data available.
Sodium hydroxide (Na(OH))	No data available.
2-Propanol	No data available.
Cellulose	No data available.

In vivo

Product:	No data available.
Components:	
Phenol, 4-chloro-3,5-dimethyl-	No data available.
Hydrochloric acid	No data available.
Sodium hydroxide (Na(OH))	No data available.
2-Propanol	No data available.
Cellulose	No data available.

Reproductive toxicity

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Product:	No data available.
Components:	
Phenol, 4-chloro-3,5-dimethyl-	No data available.
Hydrochloric acid	No data available.
Sodium hydroxide (Na(OH))	No data available.
2-Propanol	No data available.
Cellulose	No data available.

Specific Target Organ Toxicity - Single Exposure

Product:	No data available.
Components:	
Phenol, 4-chloro-3,5-dimethyl-	No data available.
Hydrochloric acid	No data available.
Sodium hydroxide (Na(OH))	No data available.
2-Propanol	No data available.
Cellulose	No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product:	No data available.
Components:	
Phenol, 4-chloro-3,5-dimethyl-	No data available.
Hydrochloric acid	No data available.
Sodium hydroxide (Na(OH))	No data available.
2-Propanol	No data available.
Cellulose	No data available.

Aspiration Hazard

Product:	No data available.
Components:	
Phenol, 4-chloro-3,5-dimethyl-	No data available.
Hydrochloric acid	No data available.
Sodium hydroxide (Na(OH))	No data available.
2-Propanol	No data available.
Cellulose	No data available.

Information on health hazards

Other hazards

Product:	No data available.

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12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product:	No data available.
Components:	
Phenol, 4-chloro-3,5-dimethyl-	No data available.
Hydrochloric acid	LC 50 (Western mosquitofish (Gambusia affinis), 96 h): 282 mg/l Mortality LC 50 (Western mosquitofish (Gambusia affinis), 48 h): 282 mg/l Mortality LC 50 (Western mosquitofish (Gambusia affinis), 24 h): 282 mg/l Mortality
Sodium hydroxide (Na(OH))	No data available.
2-Propanol	LC 50 (Pimephales promelas, 96 h): 8,680 mg/l LC 50 (Fathead minnow (Pimephales promelas), 24 h): 11,160 mg/l Mortality LC 50 (Fathead minnow (Pimephales promelas), 96 h): 9,230 - 10,000 mg/l Mortality LC 50 (Bluegill (Lepomis macrochirus), 24 h): > 1,400 mg/l Mortality LC 50 (Fathead minnow (Pimephales promelas), 24 h): 10,600 mg/l Mortality
Cellulose	No data available.

Aquatic Invertebrates

Product:	No data available.
Components:	
Phenol, 4-chloro-3,5-dimethyl-	No data available.
Hydrochloric acid	LC 50 (Common shrimp, sand shrimp (Crangon crangon), 48 h): 260 mg/l Mortality LC 50 (Green or European shore crab (Carcinus maenas), 48 h): 240 mg/l Mortality
Sodium hydroxide (Na(OH))	No data available.
2-Propanol	EC 50 (Daphnia magna, 24 h): 9,714 mg/l Experimental result, Supporting study EC 100 (Daphnia magna, 24 h): > 10,000 mg/l Experimental result, Supporting study LC 50 (Water flea (Daphnia magna), 24 h): > 10,000 mg/l Mortality LC 50 (Brine shrimp (Artemia salina), 24 h): > 10,000 mg/l Mortality LC 50 (Common shrimp, sand shrimp (Crangon crangon), 96 h): 750 - 1,650 mg/l Mortality
Cellulose	No data available.

Toxicity to Aquatic Plants

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Product:	No data available.
Components:	
Phenol, 4-chloro-3,5-dimethyl-	No data available.
Hydrochloric acid	No data available.
Sodium hydroxide (Na(OH))	No data available.
2-Propanol	No data available.
Cellulose	No data available.

Toxicity to microorganisms

Product:	No data available.
Components:	
Phenol, 4-chloro-3,5-dimethyl-	No data available.
Hydrochloric acid	No data available.
Sodium hydroxide (Na(OH))	No data available.
2-Propanol	No data available.
Cellulose	No data available.

Chronic hazards to the aquatic environment:

Fish

Product:	No data available.
Components:	
Phenol, 4-chloro-3,5-dimethyl-	No data available.
Hydrochloric acid	No data available.
Sodium hydroxide (Na(OH))	No data available.
2-Propanol	No data available.
Cellulose	No data available.

Aquatic Invertebrates

Product:	No data available.
Components:	
Phenol, 4-chloro-3,5-dimethyl-	No data available.
Hydrochloric acid	No data available.
Sodium hydroxide (Na(OH))	No data available.
2-Propanol	No data available.
Cellulose	No data available.

Toxicity to Aquatic Plants

Product:	No data available.
Components:	
Phenol, 4-chloro-3,5-dimethyl-	No data available.
Hydrochloric acid	No data available.

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Sodium hydroxide (Na(OH))	No data available.
2-Propanol	No data available.
Cellulose	No data available.

Toxicity to microorganisms

Product:	No data available.
Components:	
Phenol, 4-chloro-3,5-dimethyl-	No data available.
Hydrochloric acid	No data available.
Sodium hydroxide (Na(OH))	No data available.
2-Propanol	No data available.
Cellulose	No data available.

Persistence and Degradability

Biodegradation

Product:	No data available.
Components:	
Phenol, 4-chloro-3,5-dimethyl-	No data available.
Hydrochloric acid	No data available.
Sodium hydroxide (Na(OH))	No data available.
2-Propanol	53 % (5 d) Experimental result, Key study Detected in water.
Cellulose	No data available.

BOD/COD Ratio

Product:	No data available.
Components:	
Phenol, 4-chloro-3,5-dimethyl-	No data available.
Hydrochloric acid	No data available.
Sodium hydroxide (Na(OH))	No data available.
2-Propanol	No data available.
Cellulose	No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product:	No data available.
Components:	
Phenol, 4-chloro-3,5-dimethyl-	No data available.
Hydrochloric acid	No data available.
Sodium hydroxide (Na(OH))	No data available.
2-Propanol	No data available.

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Cellulose	No data available.

Partition Coefficient n-octanol / water (log Kow)

Product:	Log Kow: No data available.
Components:	
Phenol, 4-chloro-3,5-dimethyl-	No data available.
Hydrochloric acid	No data available.
Sodium hydroxide (Na(OH))	No data available.
2-Propanol	No data available.
Cellulose	No data available.

Mobility in soil:

Product	No data available.
Components:	
Phenol, 4-chloro-3,5-dimethyl-	No data available.
Hydrochloric acid	No data available.
Sodium hydroxide (Na(OH))	No data available.
2-Propanol	No data available.
Cellulose	No data available.

Results of PBT and vPvB assessment:

Product	No data available.
Components:	
Phenol, 4-chloro-3,5-dimethyl-	No data available.
Hydrochloric acid	No data available.
Sodium hydroxide (Na(OH))	No data available.
2-Propanol	No data available.
Cellulose	No data available.

Other adverse effects:

Other hazards

Product:	No data available.

13. Disposal considerations

General information: Dispose of waste and residues in accordance with local authority requirements.

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Disposal methods:	Must not be disposed of with solid waste. Dispose of material in accordance with federal (40 CFR 261.3), state and local requirements. RCRA Hazardous Waste - D039 (product contains <0.012% Tetrachloroethylene). Discharge, treatment, or disposal may be subject to national, state, or local laws. Since emptied containers retain product residue, follow label warnings even after container is emptied.
Contaminated Packaging:	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. Water, if necessary with cleansing agents.

14. Transport information

DOTUN number or ID number:	Not regulated.
UN Proper Shipping Name:	Not regulated.
Transport Hazard Class(es)	
Class:	Not regulated.
Label(s):	Not regulated.
Packing Group:	Not regulated.
Marine Pollutant:	Not regulated.
Limited quantity	Not regulated.
Excepted quantity	Not regulated.

Special precautions for user: Not regulated.

IMDG

UN number or ID number:	Not regulated.
UN Proper Shipping Name:	Not regulated.
Transport Hazard Class(es)	
Class:	Not regulated.
Subsidiary risk:	Not regulated.
EmS No.:	Not regulated.
Packing Group:	Not regulated.
Environmental Hazards	
Marine Pollutant:	Not regulated.

Special precautions for user: Not regulated.

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IATA

UN number or ID number:	Not regulated.
Proper Shipping Name:	Not regulated.
Transport Hazard Class(es):	
Class:	Not regulated.
Subsidiary risk:	Not regulated.
Packing Group:	Not regulated.
Environmental Hazards	
Marine pollutant:	Not regulated.
Special precautions for user:	Not regulated.

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
None present or none present in regulated quantities.

US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)
None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended
None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Identity
Hydrochloric acid
Sodium hydroxide (Na(OH))
2-Propanol

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Respiratory or Skin Sensitization

US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances
None present or none present in regulated quantities.

US. EPCRA (SARA Title III Section 313 Toxic Chemical Release Inventory (TRI) Reporting

Chemical Identity	% by weight
poly(Ethyleneglycol)nonylphenyletherammoniumsulfate	1.0%

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Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

Chemical Identity
Hydrochloric acid
Hydrochloric acid

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

Chemical Identity
Hydrochloric acid
Sodium hydroxide (Na(OH))

US State Regulations

US. California Proposition 65

No ingredient requiring a warning under CA Prop 65.

US. New Jersey Worker and Community Right-to-Know Act

US. Massachusetts RTK - Substance List

Chemical Identity
Hydrochloric acid

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity
1,2-PROPANEDIOL

US. Rhode Island RTK

Chemical Identity
1,2-PROPANEDIOL

International regulations

Montreal protocol
Not applicable

Stockholm convention
Not applicable

Rotterdam convention
Not applicable

Kyoto protocol
Not applicable

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

Issue Date: 04/08/2022

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Version #:	3.2
Further Information:	No data available.
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