SAFETY DATA SHEET

Preparation Date: 1/04/2017 **Revision date** 10/2/2019 **Revision Number:** G2

1. IDENTIFICATION

Product identifier

Product code: T1276
Product Name: TERGITOL(R) NP-4, SURFACTANT

Other means of identification
Synonyms: No information available
CAS #: 127087-87-0
RTECS # RB2451000 or TR1581962
CI#: Not available

Recommended use of the chemical and restrictions on use
Recommended use: No information available.
Uses advised against No information available

Supplier:
Spectrum Chemical Mfg. Corp
14422 South San Pedro St.
Gardena, CA 90248
(310) 516-8000

Order Online At: https://www.spectrumchemical.com
Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Tom Tyner (USA - West Coast)
Contact Person: Ibad Tirmiz (USA - East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A

Label elements

Warning

Hazard statements
Causes skin irritation
Causes serious eye irritation
Harmful if swallowed
Harmful in contact with skin

Hazards not otherwise classified (HNOC)
Not Applicable

Other hazards
Not available

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves
Wear eye/face protection

Precautionary Statements - Response

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 attention.
IF ON SKIN: Wash with plenty of water
Call a POISON CENTER or physician if you feel unwell
If skin irritation occurs: Get medical attention
Take off contaminated clothing and wash it before reuse
IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell
Rinse mouth

Precautionary Statements - Disposal
Dispose of contents and container to an approved waste disposal plant in accordance with local, regional, national and international regulations as applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight-%
Nonylphenol polyethylene glycol ether	127087-87-0	>=97
Polyethylene Glycol	25322-68-3	<=3
Dinonylphenyl polyoxyethylene	9014-93-1	<=3
Ethylene oxide	75-21-8	<=0.0020
1,4-Dioxane	123-91-1	<=0.0015
Acetaldehyde	75-07-0	<=0.0006
Formaldehyde	50-00-0	<=0.0004

4. FIRST AID MEASURES

First aid measures

General Advice: National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention. If skin irritation persists, call a physician.

Eye Contact: Flush eyes with water for 15 minutes. Immediate medical attention is required. Call a physician immediately.

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms
Causes serious eye irritation
Causes skin irritation
May affect the liver
May cause irritation of respiratory tract

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically.

Protection of first-aiders
First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Carbon dioxide (CO2). Dry powder. Water spray mist or foam.

Unsuitable Extinguishing Media: No information available.

Specific hazards arising from the chemical

Hazardous combustion products Carbon Monoxide, Carbon Dioxide.

Specific hazards May be combustible at high temperatures.

Special Protective Actions for Firefighters

Specific Methods: No information available

Special Protective Equipment for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Absorb spill with inert material (e.g. vermiculite, dry sand or earth). In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Use only non-sparking tools. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:
Provide sufficient air exchange and/or exhaust in work rooms. Keep away from incompatible materials. Remove all sources of ignition.

Safe Handling Advice:
Wear personal protective equipment. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not breathe vapors or spray mist. Do not ingest. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:
Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

Incompatible Materials:
Strong oxidizing agents
Strong bases
Strong acids

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Component	CAS No	OSHA	NIOSH	ACGIH	AIHA WEEL
Nonylphenol polyethylene glycol ether	127087-87-0	None	None	None	None
Polyethylene Glycol	25322-68-3	None	None	None	10 mg/m³ TWA
Dinonylphenyl	9014-93-1	None	None	None	None

polyoxyethylene					
Ethylene oxide	75-21-8	1 ppm TWA 5 ppm STEL	0.1 ppm TWA 0.18 mg/m³ TWA 5 ppm Ceiling 10 min/day 9 mg/m³ Ceiling 10 min/day	1 ppm TWA	None
1,4-Dioxane	123-91-1	100 ppm TWA 360 mg/m³ TWA	1 ppm Ceiling 3.6 mg/m³ Ceiling	20 ppm TWA	Not determined
Acetaldehyde	75-07-0	200 ppm TWA 360 mg/m³ TWA	None	= 25 ppm Ceiling	None
Formaldehyde	50-00-0	0.75 ppm TWA 2 ppm STEL	0.016 ppm TWA 0.1 ppm Ceiling 15 min	0.3 ppm STEL 0.1 ppm TWA	None

Canada

Component	CAS No	**Canada - Alberta**	**Canada - British Columbia**	**Canada - Ontario**	**Canada - Quebec**
Nonylphenol polyethylene glycol ether	127087-87-0	None	None	None	None
Polyethylene Glycol	25322-68-3	None	None	None	None
Dinonylphenyl polyoxyethylene	9014-93-1	None	None	None	None
Ethylene oxide	75-21-8	1 ppm TWA 1.8 mg/m³ TWA	0.1 ppm TWA 1 ppm STEL	1 ppm TWA 1.8 mg/m³ TWA 10 ppm STEL 18 mg/m³ STEL	1 ppm TWAEV 1.8 mg/m³ TWAEV
1,4-Dioxane	123-91-1	20 ppm TWA 72 mg/m³ TWA	20 ppm TWA	None	20 ppm TWAEV 72 mg/m³ TWAEV
Acetaldehyde	75-07-0	= 25 ppm Ceiling = 45 mg/m³ Ceiling	= 25 ppm Ceiling	25 ppm Ceiling	25 ppm Ceiling 45 mg/m³ Ceiling
Formaldehyde	50-00-0	1 ppm Ceiling 1.3 mg/m³ Ceiling 0.75 ppm TWA 0.9 mg/m³ TWA	0.3 ppm TWA 1 ppm Ceiling	1.5 ppm Ceiling 1 ppm STEL	2 ppm Ceiling 3 mg/m³ Ceiling

Australia and Mexico

Component	CAS No	**Australia**	**Mexico**
Nonylphenol polyethylene glycol ether	127087-87-0	None	None
Polyethylene Glycol	25322-68-3	None	None
Dinonylphenyl polyoxyethylene	9014-93-1	None	None
Ethylene oxide	75-21-8	1 ppm TWA 1.8 mg/m³ TWA	1 ppm TWA 2 mg/m³ TWA
1,4-Dioxane	123-91-1	10 ppm TWA 36 mg/m³ TWA	25 ppm TWA 90 mg/m³ TWA 100 ppm STEL 360 mg/m³ STEL
Acetaldehyde	75-07-0	91 mg/m³ STEL 50 ppm STEL 20 ppm TWA 36 mg/m³ TWA	= 25 ppm Peak = 45 mg/m³ Peak
Formaldehyde	50-00-0	1 ppm/1.2 mg/m³ TWA 2 ppm/2.5 mg/m³ STEL probable carcinogen	2 ppm Ceiling 3 mg/m³ Ceiling

Appropriate engineering controls

Engineering measures to reduce exposure: Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection:	Goggles
Skin and body protection:	Long sleeved clothing Chemical resistant apron Gloves
Respiratory protection:	Respiratory protection is not necessary for normal handling. Good room ventilation or use of local exhaust (fume hood) is sufficient. Use a vapor respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapor, inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.
Hygiene measures:	Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:
Liquid

Appearance:
No information available.

Color:
Yellow. Light yellow.

Odor:
No information available.

Taste
No information available.

Formula
C15H24O(C2H4O)x

Molecular/Formula weight (g/mole):
Av. M.W. = 400

Flammability (solid, gas)
no data available

Flashpoint (°C/°F):
218 °C/424 °F

Flash Point Tested according to:
Not available

Autoignition Temperature (°C/°F):
No information available

Lower Explosion Limit (%):
No information available

Upper Explosion Limit (%):
No information available

Melting point/range(°C/°F):
No information available

Decomposition temperature(°C/°F):
No information available

Boiling point/range(°C/°F):
>200 °C/>392 °F

Bulk density:
No information available

Density (g/cm3):
No information available

Specific gravity:
1.027-1.029

pH
pH (1% solution) = 5.0-8.0

Vapor pressure @ 20°C (kPa):
No information available

Evaporation rate:
No information available

Vapor density:
No information available

VOC content (g/L):
No information available

Odor threshold (ppm):
No information available

Partition coefficient (n-octanol/water):
No information available

Viscosity:
No information available

Miscibility:
No information available

Solubility:
Very slightly soluble in water

10. STABILITY AND REACTIVITY

Reactivity
No information available

Chemical stability

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Ignition sources. Incompatible materials.

Incompatible Materials: Strong oxidizing agents
Strong bases
Strong acids

Hazardous decomposition products: No information available.

Other Information
Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Eyes. Ingestion. Inhalation. Skin.

Acute Toxicity

The following values are calculated based on chapter 3.1 of the GHS document
Component Information

Nonylphenol polyethylene glycol ether	
CAS No	127087-87-0

LD50/oral/rat = 1310 mg/kg Oral LD50 Rat
LD50/oral/mouse = No information available
LD50/dermal/rabbit = 2000-2991 mg/kg
LD50/dermal/rat = No information available
LC50/inhalation/rat = 1.15 mg/l (dust/mist) LC50 4 h
LC50/inhalation/mouse = No information available
Other LD50 or LC50information = No information available

Polyethylene Glycol	
CAS No	25322-68-3

LD50/oral/rat = 22 g/kg Oral LD50 Rat; 28 g/kg Oral LD50 Rat
LD50/oral/mouse = No information available
LD50/dermal/rabbit = > 20 mL/kg; > 20 g/kg
LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50information = No information available

Dinonylphenyl polyoxyethylene	
CAS No	9014-93-1

LD50/oral/rat = No information available
LD50/oral/mouse = No information available
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available

LC50/inhalation/mouse = No information available
Other LD50 or LC50information = No information available

Ethylene oxide	
CAS No	75-21-8

LD50/oral/rat = 72 mg/kg Oral LD50 Rat
LD50/oral/mouse = No information available
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LC50/inhalation/rat = 800 ppm Inhalation LC50 Rat 4 h
LC50/inhalation/mouse = No information available
Other LD50 or LC50information = No information available

1,4-Dioxane	
CAS No	123-91-1

LD50/oral/rat = 5170 mg/kg Oral LD50 Rat; 4200 mg/kg Oral LD50 Rat
LD50/oral/mouse = No information available
LD50/dermal/rabbit = 7600 µL/kg Dermal LD50Rabbit
LD50/dermal/rat = No information available
LC50/inhalation/rat = 46 g/m^3 Inhalation LC50 Rat 2 h
LC50/inhalation/mouse = No information available
Other LD50 or LC50information = No information available

Acetaldehyde	
CAS No	75-07-0

LD50/oral/rat = 660 mg/kg Oral LD50 Rat
LD50/oral/mouse = 900 mg/kg
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LC50/inhalation/rat = 13300 ppm Inhalation LC50 Rat 4 h
LC50/inhalation/mouse = 23000 mg/m^3 4hr.
Other LD50 or LC50information = No information available

Formaldehyde	
CAS No	50-00-0

LD50/oral/rat = 100 mg/kg Oral LD50 Rat
LD50/oral/mouse = 500 mg/kg (RTECS)
385 mg/kg (RTECS)
42 mg/kg (RTECS)
LD50/dermal/rabbit = 270 mg/kg Dermal LD50Rabbit
LD50/dermal/rat = No information available
LC50/inhalation/rat = 0.578 mg/L Inhalation LC50 Rat 4 h
LC50/inhalation/mouse = No information available
Other LD50 or LC50information = 260 mg/kg oral LD50 Guinea Pig

Product Information

LD50/oral/rat =
Value - Acute Toxicity = No information available

LD50/oral/mouse =
Value - Acute Tox = No information available

LD50/dermal/rabbit
Value - Acute Toxicity = No information available

LD50/dermal/rat
VALUE - Acute Tox = No information available

LC50/inhalation/rat

VALUE-Vapor = No information available
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Causes skin irritation. May be absorbed through the skin. Harmful in contact with skin.

Eye Contact: Causes serious eye irritation. Causes conjunctivitis.

Inhalation Inhalation of mist or vapor may cause irritation of the nose and throat (upper respiratoy tract.

Ingestion Harmful if swallowed. May affect liver.

Aspiration hazard No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Prolonged or repeated ingestion may affect the liver.

Sensitization: No information available.

Mutagenic Effects: No information available

Carcinogenic effects: Not considered carcinogenic.

Component	CAS No	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Nonylphenol polyethylene glycol ether	127087-87-0	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
Polyethylene Glycol	25322-68-3	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
Dinonylphenyl polyoxyethylene	9014-93-1	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
Ethylene oxide	75-21-8	Group 1- Carcinogenic to humans - Monograph 100F [2012] Monograph 97 [2008] Monograph 60 [1994] overall evaluation upgraded from Group 2A to Group 1 based on mechanistic and other relevant data	A2 Suspected Human Carcinogen	Known Human Carcinogen	Present see 29 CFR 1910.1047	Not listed	Not listed
1,4-Dioxane	123-91-1	Group 2B - Possibly carcinogenic to humans -	A3 Confirmed Animal Carcinogen with Unknown	Reasonably Anticipated To Be A Human Carcinogen	Present	Not listed	Not listed

		Monograph 71 [1999] Supplement 7 [1987] Monograph 11 [1976]	Relevance to Humans				
Acetaldehyde	75-07-0	Group 1 - Carcinogenic to Humans - Monograph 100E [2012] associated with consumption of alcoholic beverages Group 2B - Possibly Carcinogenic to Humans - Monograph 71 [1999] Supplement 7 [1987] Monograph 36 [1985]	A2 - Suspected Human Carcinogen	Reasonably Anticipated To Be A Human Carcinogen	Present	Not listed	Not listed
Formaldehyde	50-00-0	Group 1 -Carcinogenic to humans - Monograph 100F [2012] Monograph 88 [2006] Monograph 62 [1995] Supplement 7 [1987]	A1 Confirmed Human Carcinogen	Known Human Carcinogen	Present see 29 CFR 1910.1048	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity No data is available

Reproductive Effects: No information available
Developmental Effects: No information available
Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure No information available.
STOT - repeated exposure No information available.
Target Organs: Liver.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Aquatic environment.

Polyethylene Glycol - 25322-68-3
Fish 5000 mg/L LC50 Carassius auratus 24 h 1
Ethylene oxide - 75-21-8

Fish	73 - 96 mg/L LC50 Pimephales promelas 96 h 1
Crustacea	137 - 300 mg/L LC50 Daphnia magna 48 h
1,4-Dioxane - 123-91-1	
Fish	10000 mg/L LC50 Lepomis macrochirus 96 h static 1 10000 mg/L LC50 Lepomis macrochirus 96 h semi-static 1 9850 mg/L LC50 Pimephales promelas 96 h flow-through 1 10306 - 14742 mg/L LC50 Pimephales promelas 96 h static 1 9850 mg/L LC50 Pimephales promelas 96 h 1
Crustacea	163 mg/L EC50 water flea 48 h
Acetaldehyde - 75-07-0	
Algae/aquatic plants	237 - 249 mg/L EC50 Nitzschia linearis 120 h
Fish	1.8-2.4 mg/L LC50 Oncorhynchus mykiss 96 h static 1 28.0-34.0 mg/L LC50 Pimephales promelas 96 h flow-through 1 39.8-46.8 mg/L LC50 Pimephales promelas 96 h static 1 53 mg/L LC50 Lepomis macrochirus 96 h static 1
Crustacea	3.64 - 6.15 mg/L EC50 Daphnia magna 48 h 48.3 mg/L EC50 Daphnia magna 48 h
Formaldehyde - 50-00-0	
Fish	22.6 - 25.7 mg/L LC50 Pimephales promelas 96 h flow-through 1 1510 µg/L LC50 Lepomis macrochirus 96 h static 1 41 mg/L LC50 Brachydanio rerio 96 h static 1 0.032 - 0.226 mL/L LC50 Oncorhynchus mykiss 96 h flow-through 1 100 - 136 mg/L LC50 Oncorhynchus mykiss 96 h static 1 23.2 - 29.7 mg/L LC50 Pimephales promelas 96 h static 1
Crustacea	2 mg/L LC50 Daphnia magna 48 h 11.3 - 18 mg/L EC50 Daphnia magna 48 h

Persistence and degradability: No information available

Bioaccumulative potential: No information available.

Mobility in soil No information available
Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:
Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:
Empty containers should be taken for local recycling, recovery or waste disposal

Component	CAS No	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Nonylphenol polyethylene glycol ether	127087-87-0	None	None	None	None
Polyethylene Glycol	25322-68-3	None	None	None	None
Dinonylphenyl polyoxyethylene	9014-93-1	None	None	None	None
Ethylene oxide	75-21-8	None	None	None	U115 ignitable waste, toxic waste
1,4-Dioxane	123-91-1	None	None	None	U108
Acetaldehyde	75-07-0	None	None	None	U001 Ignitable waste
Formaldehyde	50-00-0	None	None	None	U122

14. TRANSPORT INFORMATION

DOT

UN-No:	Not Regulated
Proper Shipping Name:	No information available
Hazard Class	No information available
Subsidiary Class	No information available
Packing group:	No information available
Emergency Response Guide Number	No information available
Marine Pollutant	No data available
DOT RQ (lbs):	No information available
Special Provisions	No Information available
Symbol(s):	No information available
Description:	No information available

TDG (Canada)

UN-No:	Not Regulated
Proper Shipping Name:	No information available
Hazard Class	No information available
Subsidiary Risk:	No information available
Packing Group:	No information available
Marine Pollutant	No Information available
Description:	No information available

ADR

UN Number	Not regulated
Proper Shipping Name:	No information available
Transport hazard class(es)	No information available
Packing group	No information available
Subsidiary Risk:	No information available

IMDG

UN-No:	Not Regulated
Proper Shipping Name:	No information available
Hazard Class:	No information available
Subsidiary Risk:	No information available
Packing Group:	No information available
Marine Pollutant	No information available

RID

UN Number	Not Regulated
Proper Shipping Name:	No information available
Transport hazard class(es)	No information available
Subsidiary Risk:	No information available
Packing group	No information available

ICAO (air)

UN-No:	Not Regulated
Proper Shipping Name:	No information available
Hazard Class	No information available
Subsidiary Risk:	No information available
Packing Group:	No information available

IATA

UN Number	Not Regulated
Proper Shipping Name:	No information available
Transport hazard class(es)	No information available
Subsidiary Risk:	No information available
Packing group	No information available
Precautionary Statements -	No information available

Response
Special Provisions No information available

15. REGULATORY INFORMATION

International Inventories

Component	CAS No	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	China IECSC	Australia (AICS)	EINECS-No.
Nonylphenol polyethylene glycol ether	127087-87-0	PresentACTIVE	Present KE-26246	Present	Present (7)-172	Present	Present	Not present
Polyethylene Glycol	25322-68-3	PresentACTIVE	Present KE-20228	Present	Present (7)-129	Present	Present	Not present
Dinonylphenyl polyoxyethylene	9014-93-1	PresentACTIVE	Present KE-11970	Present	Present (7)-273	Present	Present	Not present
Ethylene oxide	75-21-8	PresentACTIVE	Present KE-27537	Present	Present (2)-218	Present	Present	Present 200-849-9
1,4-Dioxane	123-91-1	PresentACTIVE	Present KE-10463	Present	Present (5)-839	Present	Present	Present 204-661-8
Acetaldehyde	75-07-0	Present(ACTIVE)	Present KE-00003	Present	Present (2)-485	Present	Present	Present 200-836-8
Formaldehyde	50-00-0	Present(ACTIVE)	Present KE-17074	Present	Present (2)-482	Present	Present	Present 200-001-8

U.S. Regulations

Polyethylene Glycol

Minnesota - Hazardous Substance List: Present

FDA - Direct Food Additives 21 CFR 172.210, 21 CFR 172.820, 21 CFR 173.310, 21 CFR 173.340 (molecular weight 200-9500)

FDA - 21 CFR - Total Food Additives - List Sourced from EAFUS 172.210, 172.820, 173.310, 173.340, 175.105, 175.300, 176.180, 178.3750, 73.1 (molecular weight 200-9500)

Ethylene oxide

Massachusetts RTK: Present
Massachusetts EHS: carcinogen; extraordinarily hazardous
New Jersey RTK Hazardous Substance List: 0882
New Jersey (EHS) List: 0882 500 lb TPQ
New Jersey - Discharge Prevention - List of Hazardous Substances: Present
New Jersey TCPA - EHS: 2700lbTQ
Pennsylvania RTK: Environmental hazard
Special hazardous substance
Pennsylvania RTK - Environmental Hazard List Present
Pennsylvania RTK - Special Hazardous Substances Present
Michigan PSM HHC: = 5000 lb TQ
Minnesota - Hazardous Substance List: Present
New York Release Reporting - List of Hazardous Substances:
10 lb RQ
Louisana Reportable Quantity List for Pollutants: Listed
California Directors List of Hazardous Substances: Present

FDA - 21 CFR - Total Food Additives - List Sourced from EAFUS 172.710, 172.808, 175.105, 176.180, 176.210, 177.2470, 178.3520

1,4-Dioxane

Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: 0789
New Jersey (EHS) List: 0789 500 lb TPQ
New Jersey - Discharge Prevention - List of Hazardous Substances: Present
Pennsylvania RTK: Environmental hazard
Special hazardous substance
Pennsylvania RTK - Environmental Hazard List Present
Pennsylvania RTK - Special Hazardous Substances Present
Minnesota - Hazardous Substance List: Present
New York Release Reporting - List of Hazardous Substances:
100 lb RQ
1 lb RQ

Louisana Reportable Quantity List for Pollutants: 100lbfinal RQ
45.4kgfinal RQ
California Directors List of Hazardous Substances: Present

Acetaldehyde

Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: 0001
New Jersey (EHS) List: 0001 500 lb TPQ
New Jersey - Discharge Prevention - List of Hazardous Substances: Present
New Jersey TCPA - EHS: =4900lbTQ
Pennsylvania RTK: Environmental hazard
Pennsylvania RTK - Environmental Hazard List Present
Pennsylvania RTK - Special Hazardous Substances Present
Minnesota - Hazardous Substance List: Present
New York Release Reporting - List of Hazardous Substances:
= 1 lb RQ
Louisana Reportable Quantity List for Pollutants: Listed
California Directors List of Hazardous Substances: Present
FDA - Food Additives Generally Recognized as Safe (GRAS): 21 CFR 182.60

FDA - 21 CFR - Total Food Additives - List Sourced from EAFUS 177.2410 182.60

Formaldehyde

Massachusetts RTK: Present
Massachusetts EHS: carcinogen; extraordinarily hazardous
New Jersey RTK Hazardous Substance List: 0946
New Jersey (EHS) List: 0946 500 lb TPQ
New Jersey - Discharge Prevention - List of Hazardous Substances: Present
New Jersey TCPA - EHS: 175lbTQ
15000lbTQ
Pennsylvania RTK: Environmental hazard
Special hazardous substance
Pennsylvania RTK - Environmental Hazard List Present
Pennsylvania RTK - Special Hazardous Substances Present
Michigan PSM HHC: = 1000 lb TQ
Minnesota - Hazardous Substance List: Present
New York Release Reporting - List of Hazardous Substances:
100 lb RQ
1 lb RQ
Louisana Reportable Quantity List for Pollutants: 100lbfinal RQ
45.4kgfinal RQ
California Directors List of Hazardous Substances: Present

FDA - Direct Food Additives 21 CFR 173.340

FDA - 21 CFR - Total Food Additives - List Sourced from EAFUS 173.340, 175.105, 175.210, 175.300, 176.170, 176.180, 176.200, 177.1200, 177.2410, 178.3120, 573.460

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

⚠WARNING: This product can expose you to chemicals including (see table below) which is (are) known to the State of California to cause cancer. For more information go to www.p65warnings.ca.gov.

Chemicals Known to the State of California to Cause Reproductive Toxicity:

⚠WARNING: This product can expose you to chemicals including (see table below) which is (are) known to the State of California to cause birth defects or other reproductive harm. For more information go to www.p65warnings.ca.gov.

Component	CAS No	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Nonylphenol polyethylene glycol ether	127087-87-0	Not Listed	Not Listed	Not Listed	Not Listed
Polyethylene Glycol	25322-68-3	Not Listed	Not Listed	Not Listed	Not Listed
Dinonylphenyl polyoxyethylene	9014-93-1	Not Listed	Not Listed	Not Listed	Not Listed
Ethylene oxide	75-21-8	carcinogen	Developmental toxicity	Male reproductive toxicity	female reproductive toxicity
1,4-Dioxane	123-91-1	carcinogen	Not Listed	Not Listed	Not Listed
Acetaldehyde	75-07-0	carcinogen	Not Listed	Not Listed	Not Listed
Formaldehyde	50-00-0	carcinogen	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Component	CAS No	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
Nonylphenol polyethylene glycol ether	127087-87-0	None	None	None	None	1.0 % de minimis concentration
Polyethylene Glycol	25322-68-3	None	None	None	None	None
Dinonylphenyl polyoxyethylene	9014-93-1	None	None	None	None	None
Ethylene oxide	75-21-8	10 lb final RQ 4.54 kg final RQ	1000 lb TPQ 10 lb EPCRA RQ	None	None	0.1 % de minimis concentration
1,4-Dioxane	123-91-1	100 lb final RQ 45.4 kg final RQ	None	None	None	0.1 % de minimis concentration
Acetaldehyde	75-07-0	= 1000 lb final RQ = 454 kg final RQ	None	None	None	0.1 % de minimis concentration
Formaldehyde	50-00-0	100 lb final RQ 45.4 kg final RQ	100 lb EPCRA RQ	None	None	0.1 % de minimis concentration

U.S. TSCA

Component	CAS No	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Nonylphenol polyethylene glycol ether	127087-87-0	Not Applicable	Not Applicable
Polyethylene Glycol	25322-68-3	Not Applicable	Not Applicable
Dinonylphenyl polyoxyethylene	9014-93-1	Not Applicable	Not Applicable
Ethylene oxide	75-21-8	Not Applicable	10/04/1982 10/04/1992
1,4-Dioxane	123-91-1	Not Applicable	Not Applicable
Acetaldehyde	75-07-0	Not Applicable	09/30/199106/30/1998
Formaldehyde	50-00-0	Not Applicable	Not Applicable

Canada

WHIMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information: The WHMIS 2015 classification of this product has not been validated or reviewed yet.

Component	WHMIS 2015 Hazard Classification
Ethylene oxide 75-21-8 (<=0.0020)	Flammable gases - Category 1: H220 Extremely flammable gas.; Gases under pressure - Liquefied gas: H280 Contains gas under pressure, may explode when heated.; Acute toxicity - Inhalation - Category 3: H331 Toxic if inhaled.; Skin corrosion/irritation - Category 2: H315 Causes skin irritation.; Serious Eye Damage/Eye Irritation - Category 2: H319 Causes serious eye irritation.; Respiratory sensitizers - Category 1B: H334 May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.; Skin sensitizers - Category 1B: H317 May cause allergic skin reaction.; Germ cell mutagenicity - Category 1B: H340 May cause genetic defects.; Carcinogenicity - Category 1B: H350 May cause cancer.; Reproductive Toxicity - Category 1: H360 May damage fertility or the unborn child.; Specific target organ toxicity - Single exposure - Category 3: H335 May cause respiratory irritation.; Specific target organ toxicity - Repeated exposure - Category 1: H372 Causes damage to organs through prolonged or repeated exposure.
1,4-Dioxane 123-91-1 (<=0.0015)	Flammable liquids - Category 2: H225 Highly flammable liquid and vapour.; Serious Eye Damage/Eye Irritation - Category 2: H319 Causes serious eye irritation.; Carcinogenicity - Category 2: H351 Suspected of causing cancer.

Acetaldehyde 75-07-0 (<=0.0006)	Flammable liquids - Category 1: H224 Extremely flammable liquid and vapour.; Acute toxicity - Oral - Category 4: H302 Harmful if swallowed.; Serious Eye Damage/Eye Irritation - Category 2: H319 Causes serious eye irritation.; Skin sensitizers - Category 1B: H317 May cause allergic skin reaction.; Carcinogenicity - Category 2: H351 Suspected of causing cancer.; Specific target organ toxicity - Single exposure - Category 3: H335 May cause respiratory irritation.
Formaldehyde 50-00-0 (<=0.0004)	Flammable gases - Category 1: H220 Extremely flammable gas.; Flammable liquids - Category 3: H226 Flammable liquid and vapour. (solution, 37%); Corrosive to Metals - Category 1: H290 May be corrosive to metals. (solution, 37%); Acute toxicity - Oral - Category 4: H302 Harmful if swallowed. (solution, 37%); Acute toxicity - Dermal - Category 3: H311 Toxic in contact with skin. (solution, 37%); Acute toxicity - Inhalation - Category 2: H330 Fatal if inhaled.; Skin corrosion/irritation - Category 2: H315 Causes skin irritation. (solution, 37%); Serious Eye Damage/Eye Irritation - Category 1: H318 Causes serious eye damage. (solution, 37%); Serious Eye Damage/Eye Irritation - Category 2: H319 Causes serious eye irritation.; Skin sensitizers - Category 1A: H317 May cause allergic skin reaction. (solution, 37%); Germ cell mutagenicity - Category 2: H341 Suspected of causing genetic defects.; Carcinogenicity - Category 1A: H350 May cause cancer.; Reproductive Toxicity - Category 1: H360 May damage fertility or the unborn child. (solution, 37%; contains 16% of a substance that is toxic to reproduction (Methyl alcohol)); Specific target organ toxicity - Single exposure - Category 2: H371 May cause damage to organs. (solution, 37%); Specific target organ toxicity - Single exposure - Category 3: H335 May cause respiratory irritation.; Specific target organ toxicity - Single exposure - Category 3: H336 May cause drowsiness or dizziness. (solution, 37%)

Canada Hazardous Products Regulation This product has not been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

DSL/NDSL

Component	CAS No	Canada (DSL)	Canada (NDSL)
Nonylphenol polyethylene glycol ether	127087-87-0	Present	Not Listed
Polyethylene Glycol	25322-68-3	Present	Not Listed
Dinonylphenyl polyoxyethylene	9014-93-1	Present	Not Listed
Ethylene oxide	75-21-8	Present	Not Listed
1,4-Dioxane	123-91-1	Present	Not Listed
Acetaldehyde	75-07-0	Present	Not Listed
Formaldehyde	50-00-0	Present	Not Listed

Component	CAS No	CEPA Schedule I - Toxic Substances
Nonylphenol polyethylene glycol ether	127087-87-0	Not listed
Polyethylene Glycol	25322-68-3	Not listed
Dinonylphenyl polyoxyethylene	9014-93-1	Not listed
Ethylene oxide	75-21-8	Present
1,4-Dioxane	123-91-1	Not listed
Acetaldehyde	75-07-0	Present
Formaldehyde	50-00-0	Present
Component	CAS No	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Nonylphenol polyethylene glycol ether	127087-87-0	Not listed
Polyethylene Glycol	25322-68-3	Not listed
Dinonylphenyl polyoxyethylene	9014-93-1	Not listed
Ethylene oxide	75-21-8	Not listed
1,4-Dioxane	123-91-1	Not listed
Acetaldehyde	75-07-0	Not listed

Formaldehyde	50-00-0	Not listed

EU Classification

EU GHS - SV - CLP 1272/2008

Component	CAS No	EU GHS - SV - CLP (1272/2008)
Nonylphenol polyethylene glycol ether	127087-87-0	
Polyethylene Glycol	25322-68-3	
Dinonylphenyl polyoxyethylene	9014-93-1	
Ethylene oxide	75-21-8	Flammable gases - Flam. Gas 1: H220 Extremely flammable gas.; Gases under pressure: H280 Contains gas under pressure, may explode when heated.; Acute toxicity - Inhalation - Acute Tox. 3: H331 Toxic if inhaled. (Minimum classification); Skin corrosion/irritation - Skin Irrit. 2: H315 Causes skin irritation.; Serious Eye Damage/Eye Irritation - Eye Irrit. 2: H319 Causes serious eye irritation.; Germ cell mutagenicity - Muta. 1B: H340 May cause genetic defects.; Carcinogenicity - Carc. 1B: H350 May cause cancer.; Specific target organ toxicity - Single exposure - STOT SE 3: H335 May cause respiratory irritation.603-023-00-X
1,4-Dioxane	123-91-1	Flammable liquids - Flam. Liq. 2: H225 Highly flammable liquid and vapour.; Serious Eye Damage/Eye Irritation - Eye Irrit. 2: H319 Causes serious eye irritation.; Carcinogenicity - Carc. 2: H351 Suspected of causing cancer.; Specific target organ toxicity - Single exposure - STOT SE 3: H335 May cause respiratory irritation.; Supplemental Hazards: EUH019 May form explosive peroxides.; Supplemental Hazards: EUH066 Repeated exposure may cause skin dryness or cracking.603-024-00-5
Acetaldehyde	75-07-0	
Formaldehyde	50-00-0	Acute toxicity - Oral - Acute Tox. 3: H301 Toxic if swallowed. (Minimum classification); Acute toxicity - Dermal - Acute Tox. 3: H311 Toxic in contact with skin. (Minimum classification); Acute toxicity - Inhalation - Acute Tox. 3: H331 Toxic if inhaled. (Minimum classification); Skin corrosion/irritation - Skin Corr. 1B: H314 Causes severe skin burns and eye damage. (C >= 25 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given); Skin sensitizers - Skin Sens. 1: H317 May cause allergic skin reaction. (C >= 0.2 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given); Germ cell mutagenicity - Muta. 2:

		H341 Suspected of causing genetic defects.; Carcinogenicity - Carc. 1B: H350 May cause cancer.605-001-00-5 Skin corrosion/irritation - Skin Corr. 1B: H314 Causes severe skin burns and eye damage. (C >= 25 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given); Skin corrosion/irritation - Skin Irrit. 2: H315 Causes skin irritation. (5 % <= C <25 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given); Serious Eye Damage/Eye Irritation - Eye Irrit. 2: H319 Causes serious eye irritation. (5 % <= C <25 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given); Skin sensitizers - Skin Sens. 1: H317 May cause allergic skin reaction. (C >= 0.2 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given); Specific target organ toxicity - Single exposure - STOT SE 3: H335 May cause respiratory irritation. (C >= 5 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given)605-001-00-5

EU - CLP (1272/2008)

R-phrase(s)
R22 - Harmful if swallowed
R36/38 - Irritating to eyes and skin

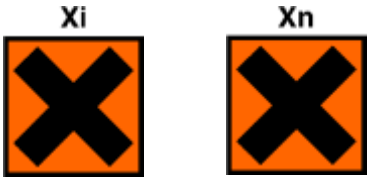
S -phrase(s)
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S37 - Wear suitable gloves
S46 - If swallowed, seek medical advice immediately and show this container or label

Component	CAS No	**Classification**	**Concentration Limits:**	**Safety Phrases**
Nonylphenol polyethylene glycol ether	127087-87-0		No information	
Polyethylene Glycol	25322-68-3		No information	
Dinonylphenyl polyoxyethylene	9014-93-1		No information	
Ethylene oxide	75-21-8	F+; R12 T; R23 Xi; R36/37/38 Carc.Cat.2; R45 Muta.Cat.2; R46 R6	No information	S53-S45

1,4-Dioxane	123-91-1	F; R11-19 Xi; R36/37 Carc.Cat.3; R40 R66	No information	S2 S9 S16 S36/37 S46
Acetaldehyde	75-07-0	F+; R12 Xi; R36/37 Carc.Cat.3; R40	No information	S2 S16 S33 S36/37
Formaldehyde	50-00-0	T; R23/24/25 C; R34 Carc.Cat.2; R45 R43 Muta.Cat.3; R68	0.2%<=C<1% Xi;R43 1%<=C<5% Xn;R40-43 25%<=C T;R23/24/25-34-40-43 5%<=C<25% Xn;R20/21/22-36/37/38-40-43	S(1/2)-S26-S36/37/39-S45- S51

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:
Xn - Harmful
Xi - Irritant



16. OTHER INFORMATION

Preparation Date: 1/04/2017
Revision date 10/2/2019
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet