

QED Bioscience Inc.
Surf's Up® Surfactant Kit
Surfactant No. 17 Tergitol®

NOTE: Chemicals in the Surf's Up® Surfactant Kit are provided as 10% solutions. The following information pertains to the chemicals in an undissolved/undiluted state.

1. PRODUCT

Trade Name	Tergitol®
Product Name	Nonylphenol ethoxylate

2. COMPOSITION

Ingredient Name	CAS Number	Concentration
α-(4-Nonylphenyl)-ω-hydroxy-poly(oxy-1,2-ethanediyl)	127087-87-0	≥67%
Polyethylene glycol	25322-68-3	<3%
Nonylphenoxy poly(ethyleneoxy)ethanol	68412-54-5	<0.35%
Poly(oxy-1,2-ethanediyl), α-(dinonylphenyl)-ω-hydroxy	68891-21-4	<0.65%
Water	7732-18-5	30%
Ethylene oxide	75-21-8	≤0.002%
1,4-Dioxane	123-91-1	≤0.002%
Acetaldehyde	75-07-0	≤0.006%
Formaldehyde	50-00-0	≤0.004%

3. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards: irritant

HAZARD RATINGS	HMIS	NFPA
Health	2	2
Flammability	0	0
Reactivity	0	0

Potential Health Effects

Inhalation May be harmful if inhaled. Causes respiratory tract irritation.

Skin May be harmful if absorbed through skin. Causes skin irritation.

Eyes May cause eye irritation.

Ingestion May be harmful if swallowed.

4. FIRST AID MEASURES

Eyes Immediately flush eyes with water for at least 15 minutes while holding eyelids open. If irritation persists, seek medical attention.

Skin Immediately flush skin with large amounts of soap and water. If irritation persists, seek medical attention.

Inhalation Move victim to fresh air. If symptoms persist, seek medical attention.

Ingestion Never give anything by mouth to an unconscious person. Rinse mouth with water. If symptoms persist, seek medical attention.

5. FIRE FIGHTING MEASURES

Flammability

Not flammable or combustible.

Extinguishing Media Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

Fire Fighting Equipment/Instructions Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing if necessary.

Hazardous combustion products

Carbon oxides

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions

Do not let product enter drains.

Containment and Clean-up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable closed containers for disposal.

7. HANDLING AND STORAGE

Handling Procedures Avoid contact with skin, eyes and clothing. Avoid breathing vapors and mists. Wash thoroughly after handling or after exposure. As with all chemicals, good industrial hygiene practices should be followed when handling this material.

Storage Procedures Keep container tightly closed in a dry and well-ventilated area. Containers that are opened must be resealed and kept upright to prevent leakage. Heat sensitive.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls Use local exhaust ventilation.

Personal Protective Equipment Wear chemical goggles and face shield if splashing is possible. Wear suitable protective clothing. Use impervious gloves. If vapors are present or irritation is experienced, NIOSH-approved respiratory protection should be worn. Eye wash fountain and emergency showers are recommended. Wash hands thoroughly after use of product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Flash Point	No data available
Melting Point	-9°C (16°F)
Boiling Point	120°C (248°F) at 760 mmHg
Ignition Temperature	No data available
Lower Explosion Limit	No data available
Upper Explosion Limit	No data available
pH	No data available
Water Solubility	No data available
Vapor pressure	19 hPa (14 mmHg) at 20°C (68°F)
Density	1.105g/cm ³ at 20°C (68°F)

10. STABILITY AND REACTIVITY

Chemical Stability Stable under recommended storage conditions.

Incompatibility Strong oxidizing agents, strong bases, strong acids, strong reducing agents

Hazardous Decomposition Carbon oxides

11. TOXICOLOGICAL INFORMATION

Acute toxicity

LD50 Oral: No data available
LC50 Inhalation: No data available
LD50 Dermal: No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Signs and symptoms of exposure

Effects due to ingestion may include diarrhea, weakness. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

Ecotoxicity No data available

13. DISPOSAL CONSIDERATIONS

Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Compliance with applicable laws is the responsibility of the user. Dispose of contaminated packaging as unused product.

14. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

15. REGULATORY INFORMATION

OSHA Hazards

Irritant

SARA 302 Components

The following components are subject to reporting levels established by SARA Title III, Section 302:

Ethylene oxide CAS No. 75-21-8
Formaldehyde CAS No. 50-00-0

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard

Massachusetts Right to Know Components

Ethylene oxide	CAS No. 75-21-8
1,4-Dioxane	CAS No. 123-91-1
Formaldehyde	CAS No. 50-00-0
Acetaldehyde	CAS No. 75-07-0

Pennsylvania Right to Know Components

Water	CAS No. 7732-18-5
Ethylene oxide	CAS No. 75-21-8
1,4-Dioxane	CAS No. 123-91-1
Formaldehyde	CAS No. 50-00-0
Acetaldehyde	CAS No. 75-07-0
α -(4-Nonylphenyl)- ω -hydroxy-poly(oxy-1,2-ethanediyl)	CAS No. 127087-87-0

New Jersey Right to Know Components

Water	CAS No. 7732-18-5
α -(4-Nonylphenyl)- ω -hydroxy-poly(oxy-1,2-ethanediyl)	CAS No. 127087-87-0
Polyethylene glycol	CAS No. 25322-68-3

California Prop. 65 Components

WARNING! This product contains a chemical known to the State of California to cause cancer.

Ethylene oxide	CAS No. 75-21-8
1,4-Dioxane	CAS No. 123-91-1
Formaldehyde	CAS No. 50-00-0
Acetaldehyde	CAS No. 75-07-0

California Prop. 65 Components

WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Ethylene oxide	CAS No. 75-21-8
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16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. QED Bioscience Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.