

QED Bioscience Inc.
Surf's Up® Surfactant Kit
Surfactant No. 8 IGEPAL® CA-630

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

Product name Octylphenoxy poly(ethyleneoxy)ethanol, branched
Trade Name IGEPAL® CA-630

2. COMPOSITION

Synonyms Octylphenoxy poly(ethyleneoxy)ethanol, branched
 Octylphenyl-polyethylene glycol

Formula $(C_2H_4O)_n C_{14}H_{22}O$
Molecular Weight ~603
CAS No. 9002-93-1

2.1 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Synthesis of substances

3. HAZARDS IDENTIFICATION

3.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 4), H302
Eye irritation (Category 2A), H319
Acute aquatic toxicity (Category 2), H401
Chronic aquatic toxicity (Category 2), H411

3.2 GHS Label elements, including precautionary statements

Pictogram and Signal word



Hazard statement(s):

H302 Harmful if swallowed.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statement(s):

P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear eye protection/ face protection.
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
 Rinse mouth.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove
 contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/ attention.

P391 Collect spillage.
P501 Dispose of contents/ container to an approved waste disposal plant.

3.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

4. COMPOSITION/INFORMATION ON INGREDIENTS

4.1 Hazardous components

p-tertiary-Octylphenoxy polyethyl alcohol Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)

Acute Tox. 4; Eye Irrit. 2A;

Aquatic Acute 2; Aquatic

Chronic 2; H302, H319, H411

5. FIRST AID MEASURES

5.1 Description of first aid measures

General advice

Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 3.2) and/or in section 12.

5.3 Indication of any immediate medical attention and special treatment needed

No data available

6. FIREFIGHTING MEASURES

6.1 Extinguishing media

Suitable extinguishing media

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

6.2 Special hazards arising from the substance or mixture

No data available

6.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

6.4 Further information

No data available

7. ACCIDENTAL RELEASE MEASURES

7.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

For personal protection see section 9.

7.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

7.3 Methods and materials for containment and cleaning up

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

7.4 Reference to other sections

For disposal see section 14.

8. HANDLING AND STORAGE

8.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

For precautions see section 3.2.

8.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Storage class (TRGS 510): Combustible liquids

8.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

9. EXPOSURE CONTROLS/PERSONAL PROTECTION

9.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

9.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact

Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested: Dermatril® (Size M)

Splash contact

Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested: Dermatril® (Size M)
data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de,
test method:
EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

10. PHYSICAL AND CHEMICAL PROPERTIES

10.1 Information on basic physical and chemical properties

a) Appearance	Form: viscous Color: light yellow
b) Odor	No data available
c) Odor Threshold	No data available
d) pH	9.7
e) Melting point/freezing point	6 °C (43 °F)
f) Initial boiling point and boiling range	> 200 °C (> 392 °F)
g) Flash point	251 °C (484 °F) - closed cup
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available

j) Upper/lower flammability or explosive limits	No data available
k) Vapor pressure	< 1.33 hPa (< 1.00 mmHg) at 20 °C (68 °F)
l) Vapor density	No data available
m) Relative density	1.06 g/mL at 25 °C (77 °F)
n) Water solubility	soluble
o) Partition coefficient: n-octanol/water	No data available
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

10.2 Other safety information

No data available

11. STABILITY AND REACTIVITY

11.1 Reactivity

No data available

11.2 Chemical stability

Stable under recommended storage conditions.

11.3 Possibility of hazardous reactions

No data available

11.4 Conditions to avoid

No data available

11.5 Incompatible materials

Strong acids, Strong bases, Strong oxidizing agents

11.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides
Other decomposition products - No data available
In the event of fire: see section 6.

12. TOXICOLOGICAL INFORMATION

12.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 1,800 mg/kg

Inhalation: No data available

LD50 Dermal - Rabbit - 8,000 mg/kg

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Moderate eye irritation - 24 h

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

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.

Reproductive toxicity

No data available

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

13. ECOLOGICAL INFORMATION**13.1 Toxicity**

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 8.9 mg/l - 96.0 h

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia (water flea) - 26 mg/l - 48 h

13.2 Persistence and degradability

Biodegradability Biotic/Aerobic Biochemical oxygen demand - Exposure time 28 d

Result: 36 % - Not readily biodegradable. (Closed Bottle test)

Chemical Oxygen Demand (COD) 2.19 mg/g

13.3 Bioaccumulative potential

No data available

13.4 Mobility in soil

No data available

13.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

13.6 Other adverse effects

Toxic to aquatic life with long lasting effects.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

14. DISPOSAL CONSIDERATIONS

14.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

15. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods

IMDG

UN number: 3082 Class: 9 Packing group: III EMS-No: F-A, S-F

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (α -[(1,1,3,3-Tetramethylbutyl)phenyl]- ω -hydroxy-poly(oxy-1,2-ethanediyl))

Marine pollutant: yes

IATA

UN number: 3082 Class: 9 Packing group: III

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (α -[(1,1,3,3-Tetramethylbutyl)phenyl]- ω -hydroxy-poly(oxy-1,2-ethanediyl))

Further information

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

16. REGULATORY INFORMATION

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

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.	Revision Date
	75-21-8	2008-11-03
1,4-Dioxane	123-91-1	2007-07-01

Pennsylvania Right To Know Components

p-tertiary-Octylphenoxy polyethyl alcohol

CAS-No.
9002-93-1**New Jersey Right To Know Components**

p-tertiary-Octylphenoxy polyethyl alcohol

CAS-No.
9002-93-1**California Prop. 65 Components**

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

Ethylene oxide

CAS-No.
75-21-8Revision Date
2009-02-01

1,4-Dioxane

123-91-1

2007-09-28

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

Ethylene oxide

CAS-No.
75-21-8Revision Date
2009-02-01**17. OTHER INFORMATION****Full text of H-Statements referred to under sections 3 and 4.**

Acute Tox.	Acute toxicity
Aquatic Acute	Acute aquatic toxicity
Aquatic Chronic	Chronic aquatic toxicity
Eye Irrit.	Eye irritation
H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H401	Toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

HMIS Rating

Health hazard:	2
Chronic Health Hazard:	
Flammability:	1
Physical Hazard	0

NFPA Rating

Health hazard:	2
Fire Hazard:	1
Reactivity Hazard:	0

Further 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 and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.