

1. IDENTIFICATION

Product Name	Nonyl Phenol Ethoxylate 100 EO
Other Names	Ethoxylated Nonylphenol; Nonyl Phenol Pure 100; POLY(OXY-1,2-ETHANEDIYL),.alpha.-(NONYLPHENYL)-.omega.-HYDROXY-
Uses	No Data Available
Chemical Family	No Data Available
Chemical Formula	(C ₂ H ₄ O) _n C ₁₅ H ₂₄ O
Chemical Name	Nonyl Phenol Ethoxylate 100 EO
Product Description	No Data Available

Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
Redox Pty Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox Pty Ltd	11 Mayo Road Wiri Auckland 2104 New Zealand	+64-9-2506222
Redox Inc.	3960 Paramount Boulevard Suite 107 Lakewood CA 90712 USA	+1-424-675-3200
Redox Chemicals Sdn Bhd	Level 2, No. 8, Jalan Sapir 33/7 Seksyen 33, Shah Alam Premier Industrial Park 40400 Shah Alam Sengalor, Malaysia	+60-3-5614-2111

Emergency Contact Details

For emergencies only; DO NOT contact these companies for general product advice.

Organisation	Location	Telephone
Poisons Information Centre	Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
Chemcall	New Zealand	0800-243622 +64-4-9179888
National Poisons Centre	New Zealand	0800-764766
CHEMTREC	USA & Canada	1-800-424-9300 CN723420 +1-703-527-3887

2. HAZARD IDENTIFICATION

Poisons Schedule (Aust) No Data Available

Safe Work Australia

Approved Criteria for Classifying Hazardous Substances (NOHSC:1008(2004))

Hazard Classification

NOT hazardous according to the criteria of Safe Work Australia [NOHSC:1008(2004)]

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification

NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

3. COMPOSITION/INFORMATION ON INGREDIENTS*Ingredients*

Chemical Entity	Formula	CAS Number	Proportion
PEG-100 Nonyl Phenyl Ether	No Data Available	9016-45-9	100.0 %

4. FIRST AID MEASURES*Description of necessary measures according to routes of exposure*

Swallowed	Rinse mouth with plenty of water. Obtain medical advise if needed.
Eye	Flush eye with plenty of water. Obtain medical attention.
Skin	Remove contaminated clothing. Wash skin with plenty of water.
Inhaled	Remove from exposure area. If sickness occur, seek medical advise.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of patient.
Medical Conditions Aggravated by Exposure	No information available on medical conditions aggravated by exposure to this product.

5. FIRE FIGHTING MEASURES

General Measures	If safe to do so, remove containers from the path of fire.
Flammability Conditions	Combustible but not really ignited.
Extinguishing Media	Water, carbon dioxide, foam, dry chemical powder.
Hazardous Products of Combustion	No Data Available
Special Fire Fighting Instructions	Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk. Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment.
Personal Protective Equipment	Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves) or chemical splash suit.
Flash Point	>170 °C
Lower Explosion Limit	No Data Available
Upper Explosion Limit	No Data Available
Auto Ignition Temperature	No Data Available
Hazchem Code	No Data Available

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Eliminate all sources of ignition. Increase ventilation. Avoid walking through spilled product as it may be slippery. Stop leak if safe to do so. Use clean, non-sparking tools and equipment.
Clean Up Procedures	Contain and sweep/shovel up spills with dust binding material or use an industrial vacuum cleaner. Transfer to a suitable, labelled container and dispose of promptly as hazardous waste.
Containment	Stop leak if safe to do so.
Environmental Precautionary Measures	Do NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management.
Evacuation Criteria	Evacuate all unnecessary personnel.
Personal Precautionary Measures	Personnel involved in the clean up should wear full protective clothing as listed in section 8.

7. HANDLING AND STORAGE

Handling	Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment. Avoid contact with eyes, skin and clothing. Do not inhale product dust/fumes.
Storage	Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials as listed in section 10. Store away from oxidizing agent. This product is classified as a 'C2' Combustible Liquid for the purpose of storage and handling in accordance with the requirements of AS1940.
Container	Container type/package must comply with all applicable local legislation. Store in original packaging as approved by manufacturer.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	No exposure standard has been established for this product by the Australian Safety and Compensation Council (ASCC). However, the exposure standard for dust not otherwise specified is 10mg/m ³ (for inspirable dust) and 3mg/m ³ (for respirable dust).
Exposure Limits	No Data Available
Biological Limits	No information available on biological limit values for this product.
Engineering Measures	A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.
Personal Protection Equipment	RESPIRATOR: Not normally required (AS1715/1716). EYES: Protective goggles (AS1336/1337). HANDS: Rubber gloves or protective gloves (AS2161). CLOTHING: Long-sleeved protective work clothes and safety boots or shoes (AS3765/2210).
Work Hygienic Practices	No Data Available

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Flake
Odour	Nearly no odour
Colour	No Data Available
pH	5 - 7 1%
Vapour Pressure	No Data Available
Relative Vapour Density	No Data Available

Boiling Point	No Data Available
Melting Point	No Data Available
Freezing Point	No Data Available
Solubility	Soluble in water
Specific Gravity	No Data Available
Flash Point	>170 °C
Auto Ignition Temp	No Data Available
Evaporation Rate	No Data Available
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	No Data Available
Density	No Data Available
Specific Heat	No Data Available
Molecular Weight	No Data Available
Net Propellant Weight	No Data Available
Octanol Water Coefficient	No Data Available
Particle Size	No Data Available
Partition Coefficient	No Data Available
Saturated Vapour Concentration	No Data Available
Vapour Temperature	No Data Available
Viscosity	No Data Available
Volatile Percent	No Data Available
VOC Volume	No Data Available
Additional Characteristics	No Data Available
Potential for Dust Explosion	No Data Available
Fast or Intensely Burning Characteristics	No Data Available
Flame Propagation or Burning Rate of Solid Materials	No Data Available
Non-Flammables That Could Contribute Unusual Hazards to a Fire	No Data Available
Properties That May Initiate or Contribute to Fire Intensity	No Data Available
Reactions That Release Gases or Vapours	No Data Available
Release of Invisible Flammable Vapours and Gases	No Data Available

10. STABILITY AND REACTIVITY

Chemical Stability	Product is stable under normal conditions of use, storage and temperature.
Conditions to Avoid	No Data Available
Materials to Avoid	Avoid strong oxidizing agent.
Hazardous Decomposition Products	No Data Available
Hazardous Polymerisation	No Data Available

11. TOXICOLOGICAL INFORMATION

General Information

6.1E (oral)
SPECIES: Rat
ENDPOINT: LD50
VALUE: 2590 mg/kg
REFERENCE SOURCE: [NTP]

6.1E (dermal)
SPECIES: Rabbit
ENDPOINT: LD50
VALUE: 2830 mg/kg
REFERENCE SOURCE: [NTP]

6.3B
SPECIES: Rabbit
RESULT: Mild
REFERENCE SOURCE: [NTP]

6.4A
SPECIES: Rabbit, Rat, Guinea Pig and Mouse
RESULT: Severe
REFERENCE SOURCE: [NTP]

EyeIrritant

May cause eye irritation.

Ingestion

No adverse effect, but large amount may cause nausea and vomiting.

Inhalation

Inhalation of mist may cause irritation.

SkinIrritant

May cause slight skin irritation.

Carcinogen Category

No Data Available

12. ECOLOGICAL INFORMATION**Ecotoxicity**

9.1B (fish)
ACUTE
SPECIES: Lepomis macrochirus Bluegill Sunfish
TYPE OF EXPOSURE: Static
DURATION: 96 hr
ENDPOINT: LC50
VALUE: 1300 ug/l (= 1.3 mg/l)
REFERENCE SOURCE: Ref no: 854. Macek, K.J., and S.F. Krzeminski (1975) Susceptibility of Bluegill Sunfish (Lepomis macrochirus) to Nonionic Surfactants. Bull.EnvIRON.Contam.Toxicol. 13(3):377-384 [ECOTOX]

9.1B (crustacean)
SPECIES: Daphnia pulex Water flea
TYPE OF EXPOSURE: Static
DURATION: 48 hr
ENDPOINT: LC50
VALUE: 4800 ug/l (= 4.8 mg/l)
REFERENCE SOURCE: Ref no: 2877. Benijts-Claus, C., and G. Persoone (1975) Toxicity of Three Herbicides in the Aquatic Ecosystem (La Toxicite de Trois Herbicides sur LEcosysteme Aquatique). La Tribune Du Cereveau 28(383):340-346 (FRE); Pestic.Abstr.9(7):526 (1976) (ABS) [ECOTOX]

9.1C (algal)
REMARK: Environment Canada/Health Canada reported LC50s for algae ranging from 27 to 2500 (g/L 17).
REFERENCE SOURCE: [REPORT ON THE TEST RESULTS ON ENDOCRINE DISRUPTING EFFECTS ON NONYLPHENOL IN FISH (DRAFT) - <http://www.oecd.org/pdf/M00019000/M00019988.pdf>]

CHRONIC
SPECIES: Medaka
TYPE OF EXPOSURE:
DURATION:
ENDPOINT: NOEC
VALUE: 8.2 µg L-1 (=0.0082 mg/l)
REFERENCE SOURCE: ALKYLPHENOLS & ETHOXYLATES RESEARCH COUNCIL
COMMENTS ON THE JAPAN ENVIRONMENTAL HEALTH DEPARTMENT, MINISTRY OF THE ENVIRONMENT
REPORT ON THE TEST RESULTS OF ENDOCRINE DISRUPTING EFFECTS OF NONYLPHENOL ON FISH (DRAFT)
Submitted January 3, 2002

Persistence/Degradability

Rapidly Degradable: No
AQUATIC FATE: Primary biodegradation tests with sediment and river water(1,2), indicate that primary degradation of polyethylene glycol linear nonylphenyl ether in water will be important (97% to 99% in 30 days). Biodegradation

screening studies on the aerobic biodegradation of mixtures of branched and linear polyethylene glycol nonylphenyl ethers indicate rapid primary degradation to nonylphenol diethoxylate and nonylphenol ethoxylate under aerobic conditions and nonylphenol under anaerobic conditions(3-5).

[(1) Yoshimura K et al; J Amer Oil Chem Soc 63: 1590-96 (1986) (2) Ruiz Cruz PJ,Dobarganes Garcis MC; Grasas y Aceites 29: 1-8 (1978) (3) Fischer WK, Gerike P; Water Res 9: 1137-41 (1975) (4) Ahel M et al; Comm Eur Communities, Eur 10388, Org Micropollut Aquat Environ pp. 412-28 (1986) (5) Kravetz L et al; Tenside Detergents 21: 1-6 (1984)]**PEER REVIEWED**
[HSDB]

Mobility No Data Available

Environmental Fate No Data Available

Bioaccumulation Potential Biocummulative: No
BCF values of <0.2 to <1.4 were measured in carp at polyethylene glycol nonylphenyl ether concentrations of 2.0 and 0.2 mg/l, respectively. According to a classification scheme(3), these BCF values indicate that bioconcentration of this mixture in aquatic organisms is low(SRC). Nonylphenol, nonylphenol monoethoxylate, and nonylphenol diethoxylate are more lipophilic and may bioconcentrate in aquatic organisms to a greater extent than higher oligomers(3).
[(1) Chemicals Inspection and Testing Institute; Biodegradation and Bioaccumulation Data of Existing Chemicals Based on the CSCL Japan. Japan Chemical Industry Ecology - Toxicology and Information Center. ISBN 4-89074-101-1 (1992) (2) Franke C et al; Chemosphere 29: 1501-14 (1994) (3) Kvestak R, Ahel M; Ecotoxicol Environ Safety 28: 25-34 (1994)]**PEER REVIEWED**
[HSDB]

Environmental Impact No Data Available

13. DISPOSAL CONSIDERATIONS

General Information Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.

Special Precautions for Land Fill Contact a specialist disposal company or the local waste regulator for advice.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code

Proper Shipping Name	Nonyl Phenol Ethoxylate 100 Eo
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available

Land Transport (New Zealand)

NZS5433

Proper Shipping Name	Nonyl Phenol Ethoxylate 100 Eo
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available

Special Provision No Data Available

Land Transport (United States of America)

US DOT

Proper Shipping Name Nonyl Phenol Ethoxylate 100 Eo
Class No Data Available
Subsidiary Risk(s) No Data Available
No Data Available
UN Number No Data Available
Hazchem No Data Available
Pack Group No Data Available
Special Provision No Data Available

Sea Transport

IMDG Code

Proper Shipping Name Nonyl Phenol Ethoxylate 100 Eo
Class No Data Available
Subsidiary Risk(s) No Data Available
UN Number No Data Available
Hazchem No Data Available
Pack Group No Data Available
Special Provision No Data Available
EMS No Data Available
Marine Pollutant No

Air Transport

IATA DGR

Proper Shipping Name Nonyl Phenol Ethoxylate 100 Eo
Class No Data Available
Subsidiary Risk(s) No Data Available
UN Number No Data Available
Hazchem No Data Available
Pack Group No Data Available
Special Provision No Data Available

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

15. REGULATORY INFORMATION

General Information No Data Available

Poisons Schedule (Aust) No Data Available

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code Not Hazardous

National/Regional Inventories

Australia (AICS)	Listed
Canada (DSL)	Not Determined
Canada (NDSL)	Not Determined
China (IECSC)	Not Determined
Europe (EINECS)	Not Determined
Europe (REACH)	Not Determined
Japan (ENCS/METI)	Not Determined
Korea (KECI)	Not Determined
Malaysia (EHS Register)	Not Determined
New Zealand (NZIoC)	Not Determined
Philippines (PICCS)	Not Determined
Switzerland (Giftliste 1)	Not Determined
Switzerland (Inventory of Notified Substances)	Not Determined
Taiwan (NCSR)	Not Determined
USA (TSCA)	Not Determined

16. OTHER INFORMATION

Related Product Codes	SUFNOC1000, SUFNOU1000
Revision	3
Revision Date	24 Jun 2014
Key/Legend	< Less Than > Greater Than AICS Australian Inventory of Chemical Substances atm Atmosphere CAS Chemical Abstracts Service (Registry Number) cm² Square Centimetres CO₂ Carbon Dioxide COD Chemical Oxygen Demand deg C (°C) Degrees Celcius EPA (New Zealand) Environmental Protection Authority of New Zealand deg F (°F) Degrees Farenheit g Grams g/cm³ Grams per Cubic Centimetre g/l Grams per Litre HSNO Hazardous Substance and New Organism IDLH Immediately Dangerous to Life and Health immiscible Liquids are insoluable in each other. inHg Inch of Mercury inH₂O Inch of Water K Kelvin kg Kilogram

kg/m³ Kilograms per Cubic Metre

lb Pound

LC50 LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.

LD50 LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.

ltr or **L** Litre

m³ Cubic Metre

mbar Millibar

mg Milligram

mg/24H Milligrams per 24 Hours

mg/kg Milligrams per Kilogram

mg/m³ Milligrams per Cubic Metre

Misc or **Miscible** Liquids form one homogeneous liquid phase regardless of the amount of either component present.

mm Millimetre

mmH₂O Millimetres of Water

mPa.s Millipascals per Second

N/A Not Applicable

NIOSH National Institute for Occupational Safety and Health

NOHSC National Occupational Health and Safety Commission

OECD Organisation for Economic Co-operation and Development

Oz Ounce

PEL Permissible Exposure Limit

Pa Pascal

ppb Parts per Billion

ppm Parts per Million

ppm/2h Parts per Million per 2 Hours

ppm/6h Parts per Million per 6 Hours

psi Pounds per Square Inch

R Rankine

RCP Reciprocal Calculation Procedure

STEL Short Term Exposure Limit

TLV Threshold Limit Value

tne Tonne

TWA Time Weighted Average

ug/24H Micrograms per 24 Hours

UN United Nations

wt Weight