



## 1. IDENTIFICATION

<b>Product Name</b>	<b>Polyethylene glycol nonylphenol ether</b>
<b>Other Names</b>	Ethoxylated nonylphenol (NP 4); Nonyl Phenol Pure 4; Nonylphenol, ethoxylated (4-EO); Polyoxyethylene, nonylphenol ether
<b>Uses</b>	Nonionic surfactant; Emulsifier; Dispersant; Detergent.
<b>Chemical Family</b>	No Data Available
<b>Chemical Formula</b>	(C <sub>2</sub> H <sub>4</sub> O) <sub>n</sub> C <sub>15</sub> H <sub>24</sub> O
<b>Chemical Name</b>	Poly(oxy-1,2-ethanediyl), .alpha.-(nonylphenyl)-.omega.-hydroxy-
<b>Product Description</b>	No Data Available

### Contact Details of the Supplier of this Safety Data Sheet

<b>Organisation</b>	<b>Location</b>	<b>Telephone</b>
Redox Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox 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.*

<b>Organisation</b>	<b>Location</b>	<b>Telephone</b>
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)

Not Scheduled



## Globally Harmonised System

<b>Hazard Classification</b>		Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)	
<b>Hazard Categories</b>		Acute Toxicity (Oral) - Category 4 Skin Corrosion/Irritation - Category 2 Serious Eye Damage/Irritation - Category 1 Acute Hazard To The Aquatic Environment - Category 1 Long-term Hazard To The Aquatic Environment - Category 2	
<b>Pictograms</b>		  	
<b>Signal Word</b>		Danger	
<b>Hazard Statements</b>		<b>H302</b>	Harmful if swallowed.
		<b>H315</b>	Causes skin irritation.
		<b>H318</b>	Causes serious eye damage.
		<b>H400</b>	Very toxic to aquatic life.
		<b>H411</b>	Toxic to aquatic life with long lasting effects.
<b>Precautionary Statements</b>	Prevention	<b>P280</b>	Wear protective gloves/eye protection/face protection.
		<b>P273</b>	Avoid release to the environment.
		<b>P270</b>	Do not eat, drink or smoke when using this product.
	Response	<b>P305 + P351 + P338 + P310</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE/doctor.
		<b>P302 + P352</b>	IF ON SKIN: Wash with plenty of water.
		<b>P391</b>	Collect spillage.
		<b>P301 + P312</b>	IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
		<b>P330</b>	Rinse mouth.
		<b>P332 + P313</b>	If skin irritation occurs: Get medical attention.
		<b>P362 + P364</b>	Take off contaminated clothing and wash it before reuse.
	Disposal	<b>P501</b>	Dispose of contents/container in accordance with local / regional / national / international regulations.

## National Transport Commission (Australia)

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

<b>Dangerous Goods Classification</b>	NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)
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## Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

<b>HSNO Classifications</b>	Health Hazards	<b>6.1D</b>	Substances that are acutely toxic - Harmful
		<b>6.3A</b>	Substances that are irritating to the skin

	<b>8.3A</b>	Substances that are corrosive to ocular tissue
Environmental Hazards	<b>9.1A</b>	Substances that are very ecotoxic in the aquatic environment

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Polyethylene glycol nonylphenyl ether	(C <sub>2</sub> H <sub>4</sub> O) <sub>n</sub> C <sub>15</sub> H <sub>24</sub> O	9016-45-9	>99 - 100 %

### 4. FIRST AID MEASURES

#### Description of necessary measures according to routes of exposure

<b>Swallowed</b>	IF SWALLOWED: Rinse mouth, then drink plenty of water. Do not induce vomiting. Call a Poison Centre or doctor/physician for advice. Never give anything by mouth to an unconscious person.
<b>Eye</b>	IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. Immediately call a Poison Centre or doctor/physician for advice.
<b>Skin</b>	IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs, get medical advice/attention.
<b>Inhaled</b>	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If respiratory symptoms persist, get medical advice/attention. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.
<b>Advice to Doctor</b>	Treat symptomatically. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
<b>Medical Conditions Aggravated by Exposure</b>	No information available.

### 5. FIRE FIGHTING MEASURES

<b>General Measures</b>	If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out. Dike fire-control water for later disposal.
<b>Flammability Conditions</b>	Combustible liquid; May burn but does not ignite readily.
<b>Extinguishing Media</b>	Use dry chemical, Carbon dioxide (CO <sub>2</sub> ), foam or water spray for extinction. Do not scatter spilled material with high-pressure water streams. *Alcohol resistant foam is the preferred firefighting medium but, if it is not available, normal foam can be used.
<b>Fire and Explosion Hazard</b>	Containers may explode when heated. Flame might be invisible in daylight.
<b>Hazardous Products of Combustion</b>	Fire may produce irritating and/or toxic, including oxides of Carbon.
<b>Special Fire Fighting Instructions</b>	Contain runoff from fire control or dilution water - Runoff may cause pollution.
<b>Personal Protective Equipment</b>	Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.
<b>Flash Point</b>	199 °C [ASTM D7094]
<b>Lower Explosion Limit</b>	No Data Available
<b>Upper Explosion Limit</b>	No Data Available
<b>Auto Ignition Temperature</b>	No Data Available

Hazchem Code

No Data Available

**6. ACCIDENTAL RELEASE MEASURES**

<b>General Response Procedure</b>	Ensure adequate ventilation. ELIMINATE all ignition sources. Do not touch or walk through spilled material. Avoid breathing vapours and contact with eyes, skin and clothing.
<b>Clean Up Procedures</b>	Pick up with sand or other non-combustible absorbent material and place into containers for later disposal (see SECTION 13).
<b>Containment</b>	Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas. Dike far ahead of large spill for later disposal.
<b>Decontamination</b>	Ventilate area.
<b>Environmental Precautionary Measures</b>	Spillages and decontamination runoff should be prevented from entering drains and watercourses. Notify local authorities if spilled in waterway or sewer.
<b>Evacuation Criteria</b>	Spill or leak area should be isolated immediately. Keep unauthorised personnel away. Keep upwind and to higher ground.
<b>Personal Precautionary Measures</b>	Use personal protective equipment as required (see SECTION 8). *Persons not wearing protective equipment and clothing should be restricted from areas of spills or leaks until cleanup has been completed.

**7. HANDLING AND STORAGE**

<b>Handling</b>	Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation, especially in confined areas. Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapours and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8). Combustible liquid: Keep away from heat and all sources of ignition - No smoking. Avoid release to the environment - Collect spillage (see SECTION 6).
<b>Storage</b>	Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep containers tightly closed. Check regularly for leaks. Protect containers against physical damage. Keep away from heat and all sources of ignition - No smoking. Keep away from foodstuffs/beverages and incompatible materials (see SECTION 10).
<b>Container</b>	Keep in the original container.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

<b>General</b>	No value assigned for this specific material by Safe Work Australia.
<b>Exposure Limits</b>	No Data Available
<b>Biological Limits</b>	No information available.
<b>Engineering Measures</b>	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.
<b>Personal Protection Equipment</b>	- Respiratory protection: In case of inadequate ventilation, wear respiratory protection. Recommended: Organic vapour respirator (refer to AS/NZS 171 5 & 1716). - Eye/face protection: Wear appropriate eye protection to prevent eye contact. Recommended: Chemical splash goggles. - Hand protection: Wear protective gloves. Recommended: Impervious gloves, e.g. Rubber gloves. - Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Protective work clothes, e.g. Overalls and safety shoes/boots.
<b>Special Hazards Precautions</b>	No information available.
<b>Work Hygienic Practices</b>	Do not eat, drink or smoke when using this product. Wash hands before break and at the end of work. Immediately remove all soiled and contaminated clothing. Wash contaminated clothing before reuse. Keep work environment clean.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Liquid
Odour	No information available.
Colour	Clear
pH	5.0 - 7.0 (1% aq.)
Vapour Pressure	<0.0013 kPa (@ No Data Available)
Relative Vapour Density	>1 Air = 1
Boiling Point	>250 °C
Melting Point	No Data Available
Freezing Point	No Data Available
Solubility	Dispersible in water
Specific Gravity	1.005 - 1.025
Flash Point	199 °C [ASTM D7094]
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 information available.
Potential for Dust Explosion	Not applicable.
Fast or Intensely Burning Characteristics	No information available.
Flame Propagation or Burning Rate of Solid Materials	No information available.
Non-Flammables That Could Contribute Unusual Hazards to a Fire	No information available.
Properties That May Initiate or Contribute to Fire Intensity	Combustible liquid; May burn but does not ignite readily.
Reactions That Release Gases or Vapours	Fire/decomposition may produce irritating and/or toxic, including oxides of Carbon.
Release of Invisible Flammable Vapours and Gases	No information available.

**10. STABILITY AND REACTIVITY**

<b>General Information</b>	No dangerous reactions known.
<b>Chemical Stability</b>	Product is stable under normal conditions.
<b>Conditions to Avoid</b>	Keep away from heat and sources of ignition.
<b>Materials to Avoid</b>	Incompatible/reactive with strong acids, oxidising agents.
<b>Hazardous Decomposition Products</b>	Fire/decomposition may produce irritating and/or toxic, including oxides of Carbon.
<b>Hazardous Polymerisation</b>	No information available.

**11. TOXICOLOGICAL INFORMATION**

<b>General Information</b>	<ul style="list-style-type: none"> <li>- Acute toxicity: Harmful if swallowed.</li> <li>- Skin corrosion/irritation: Causes skin irritation.</li> <li>- Eye damage/irritation: Causes serious eye damage.</li> <li>- Respiratory/skin sensitisation: Based on the available data, NPEs are generally not considered to have skin sensitisation potential [NICNAS].</li> <li>- Germ cell mutagenicity: Based on the available in vitro genotoxicity data, NPEs are not considered to be genotoxic [NICNAS].</li> <li>- Carcinogenicity: Based on the available data, NPEs are not considered to be carcinogenic [NICNAS].</li> <li>- Reproductive toxicity: Some in vitro evidence of biological activity related to endocrine activity [NICNAS].</li> <li>- STOT (single exposure): No information available.</li> <li>- STOT (repeated exposure): Based on the available data, Nonylphenol ethoxylates are not considered to cause serious damage to health following repeated exposure [NICNAS].</li> <li>- Aspiration toxicity: No information available.</li> </ul>
<b>Acute</b>	
<b>Ingestion</b>	Acute toxicity (Oral): - LD50, Rats: 1,310 mg/kg bw. [NICNAS].
<b>Carcinogen Category</b>	None

**12. ECOLOGICAL INFORMATION**

<b>Ecotoxicity</b>	Aquatic toxicity: - LC50, Fish (Guppies): 16.4 mg/L (48 h) [Supplier's SDS]. - EC50, Invertebrates (Daphnia magna): 18.2 mg/L (48 h) [Supplier's SDS]. *Nonylphenols and short chain nonylphenol ethoxylates are known to have endocrine activity and cause toxic effects in the reproductive systems of organisms [NICNAS].
<b>Persistence/Degradability</b>	No information available.
<b>Mobility</b>	No information available.
<b>Environmental Fate</b>	Toxic to aquatic life with long lasting effects - Avoid release to the environment.
<b>Bioaccumulation Potential</b>	No information available.
<b>Environmental Impact</b>	No Data Available

**13. DISPOSAL CONSIDERATIONS**

General Information	Dispose of contents/container in accordance with local/regional/national regulations.
Special Precautions for Land Fill	Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

#### 14. TRANSPORT INFORMATION

##### Land Transport (Australia)

ADG Code

Proper Shipping Name	(Polyethylene glycol nonylphenyl ether)
Class	C2 Combustible Liquids - Flash Point >93°C, Closed Cup, Not Excluded Flammable
Subsidiary Risk(s)	No Data Available
EPG	47 Low To Moderate Hazard Substances
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	AU01
Comments	Not regulated as DG when transported by road or rail in packagings that do not incorporate a receptacle exceeding 500 kg(L) or IBCs.

##### Land Transport (Malaysia)

ADR Code

Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Polyethylene glycol nonylphenyl ether)
Class	9 Miscellaneous Dangerous Goods and Articles
Subsidiary Risk(s)	No Data Available
EPG	47 Low To Moderate Hazard Substances
UN Number	3082
Hazchem	3Z
Pack Group	III
Special Provision	No Data Available

##### Land Transport (New Zealand)

NZS5433

Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Polyethylene glycol nonylphenyl ether)
Class	9 Miscellaneous Dangerous Goods and Articles
Subsidiary Risk(s)	No Data Available
EPG	47 Low To Moderate Hazard Substances
UN Number	3082
Hazchem	3Z
Pack Group	III
Special Provision	No Data Available

##### Land Transport (United States of America)

US DOT

Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Polyethylene glycol nonylphenyl ether)
Class	9 Miscellaneous Dangerous Goods and Articles
Subsidiary Risk(s)	No Data Available

ERG	171 Substances (Low to Moderate Hazard)
UN Number	3082
Hazchem	3Z
Pack Group	III
Special Provision	No Data Available

**Sea Transport**

IMDG Code

Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Polyethylene glycol nonylphenyl ether)
Class	9 Miscellaneous Dangerous Goods and Articles
Subsidiary Risk(s)	No Data Available
UN Number	3082
Hazchem	3Z
Pack Group	III
Special Provision	No Data Available
EMS	F-A, S-F
Marine Pollutant	Yes

**Air Transport**

IATA DGR

Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Polyethylene glycol nonylphenyl ether)
Class	9 Miscellaneous Dangerous Goods and Articles
Subsidiary Risk(s)	No Data Available
UN Number	3082
Hazchem	3Z
Pack Group	III
Special Provision	No Data Available

**National Transport Commission (Australia)**

Australian Code for the Transport of Dangerous Goods by Road &amp; 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)
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**15. REGULATORY INFORMATION**

General Information	No Data Available
Poisons Schedule (Aust)	Not Scheduled

**Environmental Protection Authority (New Zealand)**

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code	HSR002503
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**National/Regional Inventories**



Australia (AIIIC)	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)	Listed
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	SUFNOX1000, SUFNOX1100
Revision	6
Revision Date	15 Oct 2022
Key/Legend	<p>&lt; Less Than &gt; Greater Than  <b>AICS</b> Australian Inventory of Chemical Substances  <b>atm</b> Atmosphere  <b>CAS</b> Chemical Abstracts Service (Registry Number)  <b>cm<sup>2</sup></b> Square Centimetres  <b>CO<sub>2</sub></b> Carbon Dioxide  <b>COD</b> Chemical Oxygen Demand  <b>deg C (°C)</b> Degrees Celcius  <b>EPA (New Zealand)</b> Environmental Protection Authority of New Zealand  <b>deg F (°F)</b> Degrees Farenheit  <b>g</b> Grams  <b>g/cm<sup>3</sup></b> Grams per Cubic Centimetre  <b>g/l</b> Grams per Litre  <b>HSNO</b> Hazardous Substance and New Organism  <b>IDLH</b> Immediately Dangerous to Life and Health  <b>immiscible</b> Liquids are insoluable in each other.  <b>inHg</b> Inch of Mercury  <b>inH<sub>2</sub>O</b> Inch of Water  <b>K</b> Kelvin  <b>kg</b> Kilogram  <b>kg/m<sup>3</sup></b> Kilograms per Cubic Metre  <b>lb</b> Pound  <b>LC50</b> LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50%</p>

(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

**m<sup>3</sup>** Cubic Metre

**mbar** Millibar

**mg** Milligram

**mg/24H** Milligrams per 24 Hours

**mg/kg** Milligrams per Kilogram

**mg/m<sup>3</sup>** Milligrams per Cubic Metre

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

**mm** Millimetre

**mmH<sub>2</sub>O** 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