SAFETY DATA SHEET

SINOPOL 964 and 964H

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

SYNONYMS: Polyethylene glycol nonylphenyl ether, Polyoxyethylene nonylphenol ether, (Nonylphenoxy) polyethylene oxide, Ethoxylated nonylphenol, Glycols, polyethylene, mono(nonylphenyl) ether, Glycols, polyethylene, monononylphenyl ether, Nonyl phenyl polyethylene glycol ether, Nonyl phenyl polyethylene glycol, Nonylphenoxypolyethoxyethanol.

PROPER SHIPPING NAME: ENVIRONMENTALLY HAZARDOUS SUBSTANCE. LIQUID, N.O.S
Nonylphenol polyethylene glycol ether
CAS NUMBER: 9016-45-9
UN NUMBER: 3082

PRODUCT USE: Surfactant, used as wetting and dispersing agent, emulsifier, detergent. Used in concrete manufacture, in agricultural sprays, in solvent cleaners, in water paints and similar coatings.

SUPPLIER: Interchem Agencies Limited
7 Gladstone Road
Northcote
AUCKLAND 0627
NEW ZEALAND
Telephone: +64 9 418 0097
Fax: +64 9 418 4008
24 H Emergency Contact: 0800 243 622
International Emergency Contact: +64 4 917 9888

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

Hazardous Substance according to the criteria of the New Zealand Hazardous Substances and New Organisms legislation. Dangerous Good. EPA Approval number: HSR100465

HAZARD LABELLING
DANGER

HAZARD CLASSIFICATION AND STATEMENTS
HSNO Classifications: 6.1E (oral, dermal), 8.3A, 9.1B

May be harmful if swallowed.

May be harmful in contact with skin.
Causes serious eye damage.
Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

PREVENTION
Keep out of reach of children.
Read label before use.
Wear eye and face protection.
Avoid release to the environment.

RESPONSE
If medical advice is needed, have product container or label at hand.
Call a POISON CENTRE or doctor if you feel unwell.
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 CENTER or doctor/physician.
Collect spillage.

DISPOSAL
Dispose of in accordance with relevant legislation.
Do not empty into drains: dispose of this material and its container to hazardous or special waste collection point.
For more information on disposal options see section 13 the SDS.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%	HAZARDOUS
Polyethylene glycol nonylphenyl ether	9016-45-9	100	Yes

Section 4 - FIRST AID MEASURES

SWALLOWED
If swallowed and the victim is conscious and not convulsing, give water or milk to drink: (¼ to ½ cup for a child or 1 to 2 cups for an adult). Do NOT induce vomiting.
Call the Poison Centre: 0800 764 766 and if possible, take the product container to the phone. Prepare to transport the victim to medical care.

EYE
Immediately flush the eye with running water for at least 20-30 minutes. Contact the Poison Center: 0800 764 766, or medical physician. If you have difficulty washing the eye/s, go to a Medical Centre or Hospital immediately for help in flushing.
After flushing eyes thoroughly, transport the victim to hospital or a Medical Center for examination, even if there are no further symptoms.

SKIN
Immediately remove contaminated clothing. Flush the affected area with water and gently wash exposed areas with soap and water.
If continued irritation develops seek medical advice or call the Poison Centre: 0800 764 766 and if possible, take the product container to the phone.

INHALED
Remove the person to fresh air. Have them take deep breaths of fresh air. If additional symptoms such as sustained coughing, wheezing or breathlessness persists seek medical attention.

NOTES TO PHYSICIAN
Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA
Foam; Dry chemical powder; Carbon dioxide; Water spray or fog.

FIRE FIGHTING
Alert Fire Brigade and tell them location and nature of hazard.
Clear fire area of all non-emergency personnel.
Stay upwind. Keep out of low areas. Eliminate ignition sources.
Wear self-contained breathing apparatus plus protective gloves.
Prevent, by any means available, spillage from entering drains or water courses.
Use water delivered as a fine spray to control fire and cool adjacent area.
DO NOT approach containers suspected to be hot.
Cool fire exposed containers with water spray from a protected location.
If safe to do so, remove containers from path of fire.
Equipment should be thoroughly decontaminated after use.
Firefighting water should be diked and stored for later disposal.

FIRE/EXPLOSION HAZARD
Combustible.
Flame may be invisible in daylight.
Slight fire hazard when exposed to heat or flame.
Heating may cause expansion or decomposition leading to violent rupture of containers.
On combustion, may emit toxic fumes of carbon monoxide (CO).
May emit acrid smoke.
Mists containing combustible materials may be explosive.

FIRE INCOMPATIBILITY
Avoid contamination with strong acids and oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

PERSONAL PROTECTIVE EQUIPMENT
Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots and gloves). Gas tight chemical resistant suit. Limit exposure duration to 1 BA set 30 mins.
Clear fire area of all non-emergency personnel. Stay upwind. Eliminate ignition sources.

HAZCHEM CODE
3Z

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS
Slippery when spilt.
Clean up all spills immediately.
Control personal contact by using protective equipment.
Avoid breathing vapours and contact with skin and eyes.
Contain and absorb spill with sand, earth, inert material or vermiculite.
Sweep or wipe up and place in a suitable labelled container for waste disposal.
See major spills.

MAJOR SPILLS
Minor hazard.
Slippery when spilt. Clear area of personnel.
Alert Fire Brigade and tell them location and nature of hazard.
Control personal contact by using protective equipment as required.
Prevent spillage from entering drains or water ways.
Contain spill with sand, earth or vermiculite.
Collect recoverable product into labelled containers for recycling.
Absorb remaining product with sand, earth or vermiculite and place in appropriate containers for disposal.
Wash area and prevent runoff into drains or waterways.
If contamination of drains or waterways occurs, advise emergency services.
Personal Protective Equipment advice is contained in Section 8 of the SDS.

PROTECTIVE ACTION CRITERIA (PAC) - SCAPA, 2015

Chemical (CAS Number)	PAC-1	PAC-2	PAC-3	Units
Nonylphenyl polyethylene glycol ether (9016-45-9)	43	470	5400	mg/m^3

PAC-1: Mild, transient health effects.
PAC-2: Irreversible or other serious health effects that could impair the ability to take protective action.
PAC-3: Life-threatening health effects.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING
Operators should be trained in procedures for safe use of this material.
Use good occupational work practice.
Avoid all personal contact, including inhalation.
Wear protective clothing when risk of exposure occurs.
Use in a well-ventilated area.
Avoid contact with incompatible materials.
When handling, DO NOT eat, drink or smoke.
Keep containers securely sealed when not in use.
Avoid physical damage to containers.
Always wash hands with soap and water after handling.
Work clothes should be laundered separately. Launder contaminated clothing before re-use.
Observe manufacturer's storing and handling recommendations.
Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.
Overheating of ethoxylates in air should be avoided. When some ethoxylates are heated vigorously in the presence of air or oxygen, at temperatures exceeding 160˚C, they may undergo exothermic oxidative degeneration resulting in self-heating and auto ignition.
Nitrogen blanketing will minimise the potential for ethoxylate oxidation.
Trace quantities of ethylene oxide may be present in the material. Although these may accumulate in the headspace of storage and transport vessels, concentrations are not expected to exceed levels which might produce a flammability or worker exposure hazard.

SUITABLE PACKAGING
Packaging as recommended by manufacturer.
UN Approved DG packaging.
Plastic drum. Steel drum.

STORAGE INCOMPATIBILITY
Avoid storage with strong acids and oxidisers.

STORAGE REQUIREMENTS
Observe manufacturer's storing and handling recommendations.
Store in original containers.

Keep containers securely sealed.
Store in a cool, dry, well-ventilated area.
Store away from incompatible materials and foodstuff containers.
Protect containers against physical damage and check regularly for leaks.

Section 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE CONTROLS
No exposure limits set for CAS 9016-45-9 by WorkSafe New Zealand or Safe Work Australia.

ENGINEERING CONTROLS

VENTILATION SYSTEM
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. Refer to 'A simple guide to local exhaust ventilation' found on the WorkSafe New Zealand website.

PERSONAL PROTECTION EQUIPMENT (PPE)

PERSONAL RESPIRATORS
For conditions of use where exposure to mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type P95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

SKIN PROTECTION
Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Refer to AS/NZS 2161.1:2000 Occupational Protective Gloves – Selection, use and maintenance. Suitable gloves should be selected based on penetration time, rates of diffusion and break through time. Dispose of contaminated gloves after use.

EYE PROTECTION
Use approved chemical safety goggles or a full face shield where splashing is possible. Refer to Personal eye protection Part 1: Eye and face protectors for occupational applications, Australian/New Zealand Standard: AS/NZS 1337.1:2010. Maintain eye wash fountain in work area.

OTHER
Cotton washable overalls buttoned to the neck and wrist and washable hat and PVC apron.
Ensure there is ready access to an emergency shower.
Ensure that there is ready access to eye wash unit.

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE
Clear liquid.

PHYSICAL PROPERTIES

PROPERTY	VALUE
Molecular Weight:	Not applicable
Melting Range (°C):	Not available
Solubility in water (mg/L):	>1000
pH (1% solution):	5-7

Volatile Component (%vol):	Not available
Relative Vapor Density(air=1):	Not available
Lower Explosive Limit (%):	Not available
Autoignition Temp (°C):	Not available
State:	Liquid
Vapour pressure (kPa, 20°C)	<0.0013
Vapour density (Air=1)	>1
Boiling Range (°C):	>250
Specific Gravity (water=1) 30°C:	1.025-1.045
pH (as supplied):	5-7
Evaporation Rate:	Not available
Flash Point (°C):	>200 closed cup method
Upper Explosive Limit (%):	Not available
Decomposition Temp (°C):	Not available
Viscosity:	Not available

Section 10 - CHEMICAL STABILITY AND REACTIVITY

CHEMICAL STABILITY
Product is stable under normal conditions of use, storage and temperature.

CONDITIONS TO AVOID
Avoid temperature extremes, direct sunlight, moisture, fire and ignition sources.

INCOMPATIBLE MATERIALS
Incompatible with strong acids and oxidizing agents. Keep containers dry and tightly closed to avoid moisture absorption and contamination.

HAZARDOUS DECOMPOSITION PRODUCTS
Thermal decomposition can lead to release of carbon oxides.

HAZARDOUS REACTIONS
Hazardous polymerisation will not occur.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL ACUTE HEALTH EFFECTS
This chemical is damaging to the eye, possibly with irreversible effects. It is mildly acutely toxic dermally and by ingestion. Physical contact should be avoided.

ACUTE HEALTH EFFECTS
Primary route of exposure is skin contact. Possibility of contact with the eye in an industrial setting. Personal exposure should be controlled to prevent long term damage.

SWALLOWED
Considered an unlikely route of entry in commercial/industrial environments.
The liquid is regarded as mildly toxic if swallowed but may be harmful if swallowed in large quantity. Ingestion may result in nausea, abdominal irritation, pain and vomiting.

EYE
The liquid is extremely discomforting to the eyes and is capable of causing irreversible changes of the cornea and iris, impairment of vision and other eye damage such as ulceration.

SKIN
May be harmful if absorbed through the skin. Slight irritation may result upon contact with skin.

INHALED
The vapour is non-irritating to the upper respiratory tract.

CHRONIC HEALTH EFFECTS
Exposure to alkyl phenolics is associated with reduced sperm count and fertility in males. This chemical is not classified as toxic to reproduction in New Zealand however it may be in other countries.

TOXICITY AND IRRITATION DATA

TOXICITY
Acute Toxicity Oral, Rat, LD_{50}: 2590 mg/kg
Acute Toxicity Dermal, Rabbit, LD_{50}: 2830 mg/kg

IRRITATION
Skin: No classification.
Eye: Causes serious damage to eyes.

Section 12 - ECOLOGICAL INFORMATION

ECOTOXICITY
Toxic to aquatic life with long lasting effects.

ECOTOXICITY DATA
Fish, (*Lepomis macrochirus*), 96h LC_{50}: 1.3 mg/L
Fish, (*Medaka),* NOEC: 0.0082 mg/L
Crustacean, (*Daphnia pulex*), 48h LC_{50}: 4.8 mg/L

Persistence and Degradability:
Chronic: Product is not rapidly degradable.
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).
Mobility: No data available.
Bioaccumulation: 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).
BOD and COD: No data available.
Products of Biodegradation: No data available.
Toxicity of the Products of Biodegradation: No data available.

DO NOT discharge into sewer or waterways.

Section 13 - DISPOSAL CONSIDERATIONS

PRODUCT
Recycle wherever possible. Special hazard may exist - specialist advice may be required.
The product may be treated so that it is no longer hazardous by a means other than dilution. This includes incineration at an approved site, burial in a landfill or treatment at a sewage facility.
A class 9.1 substance that is or contains a component that is bioaccumulative and not rapidly degradable must be treated before discharge into the environment to reduce the percentage by volume of the substance in the discharge to 1% or any lesser percentage that may be set by the Authority after

consideration of the ecotoxicity of the substance and the extent to which the substance is bioaccumulative.

PACKAGING
Recycle wherever possible. Special hazard may exist - specialist advice may be required.
Packaging should be rendered incapable of containing any material.
Puncture containers to prevent re-use and bury at an authorised landfill.
Empty containers may be decontaminated. The residual contents of the package must be diluted to below the thresholds for the respective hazard and the diluted residue is 1% or less of the volume of the package.
Alternatively, consult an approved Waste Management company for disposal options or dispose of at an approved waste disposal facility.
Observe all label safeguards until containers are cleaned and destroyed.
Where possible retain label warnings and SDS and observe all notices pertaining to the product.
Must not be disposed of in household rubbish.

Section 14 – TRANSPORT INFORMATION

Labels Required: MISCELLANEOUS, MARINE POLLUTANT.
HAZCHEM: 3Z

UNDG:	
UN Number	3082
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. Nonylphenol polyethylene glycol ether
Dangerous Goods Class	9
Subrisk	n/a
Packing Group	III

Air Transport IATA:	
UN/ID Number	3082
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. Nonylphenol polyethylene glycol ether
ICAO/IATA Class	9
Subrisk	n/a
Packing Group	III

Maritime Transport IMDG:	
UN Number	3082
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. Nonylphenol polyethylene glycol ether
IMDG Class	9
Subrisk	n/a
Packing Group	III
Marine Pollutant	Yes
EMS Number:	F-A, S-F

Section 15 - REGULATORY INFORMATION

REGULATIONS
Classified as hazardous according to the criteria of the New Zealand Hazardous Substances and New Organisms Act.
EPA Approval Number: HSR100465
HSNO Classifications: 6.1E (oral, dermal), 8.3A, 9.1B

This chemical has been classified based on the EPA/ERMA New Zealand Yearly Chemical Review 2009 – Application number ERMA200067.

TRANSFER NOTICE: 28 June 2006 Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2006, *New Zealand Gazette,* 26 June 2006 – Issue No.72
(Transferred as: Polyethylene glycol nonylphenyl ether, (8-14 Moles of ethylene oxide)

Controls applying to this substance are:
1. Hazardous Substances (Classes 6,8 and 9 Controls) Regulations 2001
   T1 (R11-27), T2 (R29, 30), T4 (R7), T5 (R8), T7 (R10), T8 (R28), E1* (R32-45), E2 (R46-48), E6 (R9)
2. Hazardous Substances (Packaging) Regulations 2001
   P1 (R5,6,7(1),8), P3 (R9), P13 (R19), P14 (R20), P15 (R21), PG3
3. Hazardous Substances (Disposal) Regulations 2001
   D4 (R8), D5 (R9), D6 (R10), D7 (R11, 12), D8 (13,14)
4. Hazardous Substances (Emergency Management) Regulations 2001
   EM1 (R6,7,9-11), EM2(R8a), EM6 (R8e), EM7 (R8f), EM8 (R12-16, 18-20), EM11 (R25-34), EM12* (R35-41), EM13 (R42)
5. Hazardous Substances (Identification) Regulations 2001
   I1 (R6,7,32-35,36.1-36.7), I2(R8), I3 (R9), I8 (R14), I9 (R18), I10(R19), I11 (R20), I16 (R25), I17 (R26), I18 (R27), I19 (R29-31), I21 (R37-39, 47-50), I22(R40), I23(R41), I28 (R46), I29 (51,52), I30 (R53)

Nonylphenol, ethoxylated (CAS 9016- 45- 9) is found on the following regulatory lists:
New Zealand Transferred List of Single Component Substances
OECD Representative List of High Production Volume (HPV) Chemicals
OSPAR List of Substances of Possible Concern
ANNEX XVII to REACH – Entry 46a – Conditions of restriction
CESIO Classification of Surfactants guidance documentation

The Classification HSR003054, CAS 9016-45-9 was reviewed in the Yearly chemical Review 2009.

Section 16 - OTHER INFORMATION

NEW ZEALAND POISON CENTRE 0800 POISON (0800 764 766)
NZ EMERGENCY SERVICES: 111

Interpretation and Abbreviations
Controls applying to a substance:
- * denotes that changes have been made to these controls, further information on these changes is located in the transfer notice for that substance.
- (R) abbreviation for the term Regulation of the Hazardous Substances regulations

ACGIH – American Conference of Governmental Industrial Hygienists.
ACVM – Agricultural Chemicals and Veterinary Medicines.
AICS – Australian Inventory of Chemical Substances.
AOX – Absorbable organic halogens.
APF – Assigned Protection Factor.
BOD – Biochemical Oxygen Demand.
China IECSC – Inventory of Existing Chemical Substances Produced or Imported in China.

COD – Chemical Oxygen Demand.
DSL – Canadian Domestic Substances List.
EINECS – European Inventory of Existing Commercial Chemical Substances.
ENCS – Japanese Existing and New Chemical substances.
IDLH – Immediately Dangerous to Life or Health Concentrations.
IARC – International Agency for Research on Cancer.
ISHL – Japanese Industrial Safety and Health Law List of Chemicals.
LOEL – Lowest Observed Effect Level.
LD_{LO} – Lethal Dose Low (the lowest dosage per unit of bodyweight of a substance known to have resulted in fatality in a particular animal species).
MAK – Maximum workplace concentration in the workplace air that generally does not have known adverse effects on the health of the employee nor cause unreasonable annoyance when a person is repeatedly exposed during long periods, usually 8 hours daily, 40hour working week).
NOAA – National Oceanic and Atmospheric Administration.
NOEC – No Observed Effect Concentration.
NTP – National Toxicology Program.
NZ CCID – New Zealand Chemical Classification and Information Database.
NZIoC – New Zealand Inventory of Chemicals.
OECD HPV – The Organisation for Economic Co-operation and Development High Production Volume Chemicals.
PEL – Permissible exposure limit.
PPE – Personal Protective Equipment.
Prop 65 – California Proposition 65 List of Chemicals.
RTECS – Registry of Toxic Effects of Chemical substances.
SCAPA – Subcommittee on Consequence Assessment and Protective Actions.
STEL – Short term exposure limit.
TOC – Total Organic Carbon.
TSCA – US Toxic Substances Control Act Existing Chemicals.
TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.
VOC – Volatile Organic Compounds.

Sources of key data used to compile the datasheet:
Manufacturer's SDS
NZ EPA CCID
NZ EPA ERMA Document 200067
CESIO Classification of Surfactants according to the 2nd ATP - Public Guidance Documents

Date of Preparation/Review: 2016.10.06
Amendments: Review classification and DG information based on updated data from manufacturer. Reviewed all data in the SDS.

***DISCLAIMER**: The information contained in this safety data sheet was obtained from current and reliable sources. This data is supplied without warranty, expressed or implied, regarding its correctness and accuracy. It is the user's responsibility to determine safe conditions for use of this product and to assume liability for loss, injury, damage or expense resulting from improper use of this product.*

End of SDS