SAFETY DATA SHEETS

According to Globally Harmonized System of Classification and Labelling of Chemicals (GHS) - Sixth revised edition

Version: 1.0

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Name:	Nonylphenoxypoly(ethyleneoxy)ethanol
Synonym:	Polyoxyethylene (9) nonyl phenyl ether; Polyethylene glycol 450 nonyl phenyl ether; Ethylene oxide-nonylphenol polymer
CAS:	9016-45-9

Section 1 - Chemical Product MSDS Name:Dowfax 9N9 Material Safety Data Sheet

Synonym:Polyoxyethylene (9) nonyl phenyl ether; Polyethylene glycol 450 nonyl phenyl ether; Ethylene oxide-nonylphenol polymer

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Section 2 - COMPOSITION, INFORMATION ON INGREDIENTS

CAS#	Chemical Name	content	Nonylphenoxypoly(ethyleneoxy)ethanol
9016-45-9	Ethylene oxide-nonylphenol polymer	100	Nonylphenoxypoly(ethyleneoxy)ethanol

Hazard Symbols: XI

Risk Phrases: 37/38 41

Section 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Irritating to respiratory system and skin. Risk of serious damage to eyes.

Potential Health Effects

Eye:

Contact with eyes may cause severe irritation, and possible eye burns.

Skin:

Prolonged and/or repeated contact may cause defatting of the skin and dermatitis. Contact with skin causes irritation and possible burns, especially if the skin is wet or moist.

Ingestion:

Causes gastrointestinal irritation with nausea, vomiting and diarrhea. The toxicological properties of this substance have not been fully investigated.

Inhalation:

Causes respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.

Chronic:

May cause reproductive and fetal effects. May cause lung damage.

Section 4 - FIRST AID MEASURES

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin:

Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion:

If victim is conscious and alert, give 2-4 cupfuls of milk or water.

Never give anything by mouth to an unconscious person. Get medical aid immediately.

Inhalation:

Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician:

Section 5 - FIRE FIGHTING MEASURES

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media:

In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam.

Section 6 - ACCIDENTAL RELEASE MEASURES

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section.

Section 7 - HANDLING and STORAGE

Handling:

Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Do not get on skin or in eyes. Avoid ingestion and inhalation. Avoid breathing spray or mist.

Storage:

Keep container closed when not in use. Store in a suitable container in a dry area above the substance's freezing point.

Section 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits CAS# 9016-45-9: Personal Protective Equipment Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
Color: colorless
Odor: None reported.
pH: Not available.
Vapor Pressure: Not available.
Viscosity: Not available.
Boiling Point: Not available.
Freezing/Melting Point: 1 deg C
Autoignition Temperature: Not applicable.
Flash Point: > 212 deg F (> 100.00 deg C)
Explosion Limits, lower: Not available.
Explosion Limits, upper: Not available.
Decomposition Temperature: Not available.
Solubility in water: Soluble in water.
Specific Gravity/Density: 1.06
Molecular Formula: C2H4O1nC14H10O3
Molecular Weight:

Section 10 - STABILITY AND REACTIVITY

Chemical Stability:
Stable under normal temperatures and pressures.
Conditions to Avoid:
Excess heat.
Incompatibilities with Other Materials:
Strong oxidizing agents.
Hazardous Decomposition Products:
Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.
Hazardous Polymerization: Will not occur.

Section 11 - TOXICOLOGICAL INFORMATION

RTECS#:
CAS# 9016-45-9: AX0247000 AX0257000 MD0900000 MD0905000 OQ0248333 WZ4200000 WZ4375000 WZ4550000 WZ4725000 WZ4750000 LD50/LC50:
CAS# 9016-45-9: Draize test, rabbit, eye: 5 mg Severe; Draize test, rabbit, eye: 5 mg Severe; Draize test, rabbit, eye: 20 mg Severe; Draize test, rabbit, eye: 100 mg Severe; Draize test, rabbit, eye: 15 mg Severe; Draize test, rabbit, eye: 5 mg Severe; Oral, mouse: LD50 = >50 gm/kg; Oral, rat: LD50 = 4 gm/kg; Oral, rat: LD50 = 1310 mg/kg; Oral, rat: LD50 = 2590 uL/kg; Oral, rat: LD50 = >3 gm/kg; Oral, rat: LD50 = 4290 uL/kg; Oral, rat: LD50 = 3670 uL/kg; Oral, rat: LD50 = 3730 uL/kg; Oral, rat: LD50 = 4 gm/kg; Oral, rat: LD50 = 16 gm/kg; Skin, rabbit: LD50 = 2 mL/kg; Skin, rabbit: LD50 = 2830 uL/kg; Skin, rabbit: LD50 = 2520 uL/kg; Skin, rabbit: LD50 = 1780 uL/kg; Skin, rabbit: LD50 = 3970 uL/kg; Skin, rabbit: LD50 = 4490 uL/kg.
Carcinogenicity:
Ethylene oxide-nonylphenol polymer - Not listed by ACGIH, IARC, or NTP.
Other:
See actual entry in RTECS for complete information.

Section 12 - ECOLOGICAL INFORMATION

Section 13 - DISPOSAL CONSIDERATIONS

Products which are considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is

covered by regulations which may vary according to location. Contact a specialist disposal company or the local waste regulator for advice. Empty containers must be decontaminated before returning for recycling.

Section 14 - TRANSPORT INFORMATION

IATA
Shipping Name: Not regulated.
Hazard Class:
UN Number:
Packing Group:
IMO
Shipping Name: Not regulated.
Hazard Class:
UN Number:
Packing Group:
RID/ADR
Shipping Name: Not regulated.
Hazard Class:
UN Number:
Packing group:

Section 15 - REGULATORY INFORMATION

European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: XI
Risk Phrases:
R 37/38 Irritating to respiratory system and skin.
R 41 Risk of serious damage to eyes.
Safety Phrases:
S 26 In case of contact with eyes, rinse immediately
with plenty of water and seek medical advice.
S 36 Wear suitable protective clothing.
WGK (Water Danger/Protection)
CAS# 9016-45-9: 2
Canada
CAS# 9016-45-9 is listed on Canada's DSL List.
CAS# 9016-45-9 is not listed on Canada's Ingredient Disclosure List.
US FEDERAL
TSCA
CAS# 9016-45-9 is listed on the TSCA inventory.

SECTION 16 - ADDITIONAL INFORMATION

N/A