

Material Safety Data Sheet

Nonylphenol Ethoxylate

Product Name: NP-9 SURFACTANT REGULAR

Issue Date: 05/15/2012

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The Dow Chemical Company encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. Product and Company Identification

Product Name

NP-9 SURFACTANT REGULAR

COMPANY IDENTIFICATION

The Dow Chemical Company
2030 Willard H. Dow Center
Midland, MI 48674
United States

Supplier:

Chemical Store Inc.

1059 Main Ave, Clifton, NJ 07011

www.ChemicalStore.com

(973)405-6248

Customer Information Number:

800-258-2436

EMERGENCY TELEPHONE NUMBER**24-Hour Emergency Contact:**

989-636-4400

Local Emergency Contact:

989-636-4400

2. Hazards Identification

Emergency Overview**Color:** Yellow**Physical State:** Liquid.**Odor:** Mild**Hazards of product:**

WARNING! Causes eye irritation. Harmful if inhaled. May be harmful if absorbed through skin. May be harmful if swallowed. Isolate area. Keep upwind of spill.

OSHA Hazard Communication Standard

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Potential Health Effects**Eye Contact:** May cause severe eye irritation. May cause severe corneal injury.**Skin Contact:** Prolonged contact may cause slight skin irritation with local redness.**Skin Absorption:** Prolonged skin contact is unlikely to result in absorption of harmful amounts.**Inhalation:** Prolonged excessive exposure to mist may cause serious adverse effects, even death. Vapor may cause irritation of the upper respiratory tract (nose and throat).**Ingestion:** Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.**Aspiration hazard:** Based on physical properties, not likely to be an aspiration hazard.**Effects of Repeated Exposure:** For this family of materials: In animals, effects have been reported on the following organs: Kidney. Liver.**Birth Defects/Developmental Effects:** For this family of materials: Has been toxic to the fetus in laboratory animals at doses toxic to the mother.

3. Composition Information

Component	CAS #	Amount
Nonylphenol polyethylene glycol ether	127087-87-0	>= 97.0 %
Poly(ethylene oxide)	25322-68-3	<= 3.0 %
Dinonylphenyl polyoxyethylene	9014-93-1	<= 2.0 %

Other CAS-Numbers for Nonylphenol polyethylene glycol ether (for information only)

9016-45-9	Nonylphenol, ethoxylated	26027-38-3	4-Nonylphenol, ethoxylated
68412-54-4	Nonylphenol, branched, ethoxylated	127087-87-0	4-Nonylphenol, branched, ethoxylated
37205-87-1	Isononylphenol, ethoxylated		

4. First-aid measures

Description of first aid measures

General advice: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air. If not breathing, give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc). If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

Skin Contact: Wash skin with plenty of water.

Eye Contact: Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist. Eye wash fountain should be located in immediate work area.

Ingestion: If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

Most important symptoms and effects, both acute and delayed

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), no additional symptoms and effects are anticipated.

Indication of immediate medical attention and special treatment needed

Maintain adequate ventilation and oxygenation of the patient. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. Fire Fighting Measures

Suitable extinguishing media

Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

Extinguishing Media to Avoid: Do not use direct water stream. May spread fire.

Special hazards arising from the substance or mixture

Hazardous Combustion Products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide.

Unusual Fire and Explosion Hazards: Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

Advice for firefighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage.

Special Protective Equipment for Firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Keep upwind of spill. Ventilate area of leak or spill. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection. Refer to Section 7, Handling, for additional precautionary measures.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Methods and materials for containment and cleaning up: Contain spilled material if possible. Absorb with materials such as: Sand. Dirt. Collect in suitable and properly labeled containers. Do not use water for cleanup. See Section 13, Disposal Considerations, for additional information.

Ignition Sources Removal: Keep away from sources of ignition.

Dust Control: Not applicable.

7. Handling and Storage**Handling**

General Handling: Avoid contact with eyes, skin, and clothing. Avoid breathing vapor. Do not swallow. Wash thoroughly after handling. Keep container closed. Use with adequate ventilation. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Storage

No specific requirements. Additional storage and handling information on this product may be obtained by calling your sales or customer service contact. The shelf life given is for unopened containers stored under moderate temperature conditions.

Shelf life: Use within
24 Months

8. Exposure Controls / Personal Protection**Exposure Limits**

Component	List	Type	Value
Poly(ethylene oxide)	AIHA WEEL	TWA Particulate.	10 mg/m ³

Personal Protection

Eye/Face Protection: Use chemical goggles.

Skin Protection: Wear clean, body-covering clothing.

Hand protection: Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Examples of preferred glove barrier materials include: Butyl rubber. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Respiratory Protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use an approved respirator. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus. In confined or poorly ventilated areas, use an approved self-contained breathing apparatus or positive pressure air line with auxiliary self-contained air supply. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

Ingestion: Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

Engineering Controls

Ventilation: Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

9. Physical and Chemical Properties

Appearance	
Physical State	Liquid.
Color	Yellow
Odor	Mild
Odor Threshold	No test data available
pH	No test data available
Melting Point	Not applicable to liquids
Freezing Point	3.8 °C (38.8 °F) <i>Calculated</i>
Boiling Point (760 mmHg)	> 250 °C (> 482 °F) <i>Calculated</i> Decomposes before boiling.
Flash Point - Closed Cup	247 °C (477 °F) <i>ASTM D93</i>
Flash Point - Open Cup	282 °C (540 °F) <i>ASTM D92</i>
Evaporation Rate (Butyl Acetate = 1)	No test data available
Flammability (solid, gas)	Not applicable to liquids
Flammable Limits In Air	Lower: No test data available Upper: No test data available
Vapor Pressure	< 0.01 mmHg @ 20 °C <i>Calculated</i>
Vapor Density (air = 1)	>1 <i>Calculated</i>
Specific Gravity (H₂O = 1)	1.057 20 °C/20 °C <i>Calculated</i>
Solubility in water (by weight)	Completely soluble but some compositions may form gels
Partition coefficient, n-octanol/water (log Pow)	2.1 - 3.4 <i>Calculated</i>
Autoignition Temperature	No test data available

Decomposition Temperature	No test data available
Kinematic Viscosity	237 cSt @ 25 °C <i>Calculated</i>
Explosive properties	no data available
Oxidizing properties	no data available

10. Stability and Reactivity

Reactivity

No dangerous reaction known under conditions of normal use.

Chemical stability

Thermally stable at typical use temperatures.

Possibility of hazardous reactions

Polymerization will not occur.

Conditions to Avoid: Exposure to elevated temperatures can cause product to decompose.

Incompatible Materials: Avoid contact with: Strong acids. Strong bases. Strong oxidizers.

Hazardous decomposition products

Decomposition products depend upon temperature, air supply and the presence of other materials.

11. Toxicological Information

Acute Toxicity

Ingestion

Typical for this family of materials. LD50, rat 960 - 3,980 mg/kg

Dermal

Typical for this family of materials. LD50, rabbit 2,000 - 2,991 mg/kg

Inhalation

Typical for this family of materials. LC50, 4 h, Aerosol, rat 1.15 mg/l

Eye damage/eye irritation

May cause severe eye irritation. May cause severe corneal injury.

Skin corrosion/irritation

Prolonged contact may cause slight skin irritation with local redness.

Sensitization

Skin

For this family of materials: Did not cause allergic skin reactions when tested in humans.

Respiratory

No relevant data found.

Repeated Dose Toxicity

For this family of materials: In animals, effects have been reported on the following organs: Kidney. Liver.

Chronic Toxicity and Carcinogenicity

For this family of materials: Did not cause cancer in laboratory animals.

Developmental Toxicity

For this family of materials: Has been toxic to the fetus in laboratory animals at doses toxic to the mother. For this family of materials: Did not cause birth defects in laboratory animals.

Reproductive Toxicity

No relevant data found.

Genetic Toxicology

For this family of materials: In vitro genetic toxicity studies were negative.

12. Ecological Information

Toxicity

For this family of materials: Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested).

Fish Acute & Prolonged Toxicity

For this family of materials: LC50, Pimephales promelas (fathead minnow), 96 h: 3.8 - 6.2 mg/l

Aquatic Invertebrate Acute Toxicity

For this family of materials: LC50, Daphnia magna (Water flea), 48 h: 9.3 - 21.4 mg/l

Toxicity to Micro-organisms

For this family of materials: IC50; Bacteria, 16 h: > 1,000 mg/l

Persistence and Degradability

For this family of materials: Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

OECD Biodegradation Tests:

Biodegradation	Exposure Time	Method	10 Day Window
< 60 %	28 d	OECD 301B Test	Not applicable

Chemical Oxygen Demand: 2.09 - 2.25 mg/mg

Theoretical Oxygen Demand: 2.15 - 2.25 mg/mg

Bioaccumulative potential

Partition coefficient, n-octanol/water (log Pow): 2.1 - 3.4 Calculated

Bioconcentration Factor (BCF): 5.9 - 48; Fish; Estimated.

Mobility in soil

Mobility in soil: No relevant data found.

13. Disposal Considerations

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device. Waste water treatment system.

14. Transport Information

DOT Non-Bulk

NOT REGULATED

DOT Bulk

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Technical Name: NONYLPHENOL POLYETHYLENE GLYCOL ETHER

Hazard Class: 9 **ID Number:** UN3082 **Packing Group:** PG III

IMDG

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Technical Name: NONYLPHENOL POLYETHYLENE GLYCOL ETHER
Hazard Class: CLASS 9 **ID Number:** UN 3082 **Packing Group:** PG III
EMS Number: F-A,S-F
Marine pollutant.: Yes

ICAO/IATA

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Technical Name: NONYLPHENOL POLYETHYLENE GLYCOL ETHER
Hazard Class: 9 **ID Number:** UN3082 **Packing Group:** PG III
Cargo Packing Instruction: 964
Passenger Packing Instruction: 964
Additional Information

MARINE POLLUTANT

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. Regulatory Information

OSHA Hazard Communication Standard

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Immediate (Acute) Health Hazard	Yes
Delayed (Chronic) Health Hazard	Yes
Fire Hazard	No
Reactive Hazard	No
Sudden Release of Pressure Hazard	No

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Hazardous Substances List and/or Pennsylvania Environmental Hazardous Substance List:

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Special Hazardous Substances List:

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

WARNING: This product contains a chemical(s) known to the State of California to cause cancer.

Component	CAS #	Amount
1,4-Dioxane	123-91-1	20.0 PPM

Ethylene oxide

75-21-8

10.0 PPM

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

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

Component	CAS #	Amount
Ethylene oxide	75-21-8	10.0 PPM

US. Toxic Substances Control Act

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30

CEPA - Domestic Substances List (DSL)

All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

European Inventory of Existing Commercial Chemical Substances (EINECS)

This product is a polymer according to the definition in Directive 92/32/EEC (7th Amendment to Directive 67/548/EEC) and all of its starting materials and intentional additives are listed in the European Inventory of Existing Commercial Chemical Substances (EINECS) or in compliance with European (EU) chemical inventory requirements.

16. Other Information

Product Literature

Additional information on this and other products may be obtained by visiting our web page. Additional information on this product may be obtained by calling your sales or customer service contact. Ask for a product brochure.

Hazard Rating System

NFPA	Health	Fire	Reactivity
	2	0	0

Recommended Uses and Restrictions**Identified uses**

Multi-purpose surfactant. NOTICE! NOT TO BE USED AS A BIOCIDES IN INTRAVAGINAL END-USE APPLICATIONS (INCLUDING SPERMICIDES). FOR INDUSTRY USE ONLY. We recommend that you use this product in a manner consistent with the listed use. If your intended use is not consistent with the stated use, please contact your sales or technical service representative.

Revision

Identification Number: 2033 / 0000 / Issue Date 05/15/2012 / Version: 5.0

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

N/A	Not available
W/W	Weight/Weight
OEL	Occupational Exposure Limit
STEL	Short Term Exposure Limit
TWA	Time Weighted Average
ACGIH	American Conference of Governmental Industrial Hygienists, Inc.
DOW IHG	Dow Industrial Hygiene Guideline
WEEL	Workplace Environmental Exposure Level
HAZ_DES	Hazard Designation
Action Level	A value set by OSHA that is lower than the PEL which will trigger the need for activities such as exposure monitoring and medical surveillance if exceeded.

The Dow Chemical Company urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.