



MATERIAL SAFETY DATA SHEET SDS/MSDS

1. PRODUCT IDENTIFIER

1.1 PRODUCT NAME -----> Ethoxylated Nonylphenol NP-9 & 9.5

PRODUCT CODE > B-01878

**TRADE NAMES AND SYNONYMS > nonylphenol ethoxylate NP-9, NP-9.5
alpha(nonylphenyl)omegahydroxypoly(oxy1,2ethanediyl); nonoxynol9**

CAS-No: 104-40-5

**1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES
ADVISED AGAINST**

RECOMMENDED USE: Manufacture of substances. Surfactant

USES ADVISED AGAINST: No information available

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Company: Bio-Chem Chemicals

Address: 5455 Nicholson Road, Science Market

Ambala Cantt, 133001 - Haryana

+91 82952 41953

info@biofinechemical.com - www.biofinechemical.com

1.4 Emergency Telephone Number

Emergency Phone: +91 99921 51495 (10.00am - 06.30pm) (Office Hours)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 4), H302

Skin corrosion/irritation (Category 2), H315

Serious eye damage (Category 1), H318

Chronic aquatic toxicity (Category 1), H411

2.2 GHS Label elements, including precautionary statements



Pictogram

GHS05

GHS07

GHS09

Signal word: **WARNING**

Hazard statement(s)

H302 Harmful if swallowed.

H315 Causes skin irritation

H318 Causes serious eye damage.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

Prevention:

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

P280 Wear protective gloves/ eye protection/ face protection.

Reponse:

P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.co

P302+P352 IF ON SKIN: Wash with plenty of water

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor/ physician.

P330 Rinse mouth.

P391 Collect spillage.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. INGREDIENTS

3.1 SUBSTANCE: Not applicable

3.2 MIXTURE:

Ingredient	CAS No.	% by WT. Range	CLASSIFICATION
Nonylphenol	104-40-5	97-9	9 Acute toxicity, Oral (Category 4), H302
Ethoxylate	EC-No.500-024-6		Skin corrosion/irritation (Category 2), H315

NP-9, NP-9.5 Reg.-No.01-2119946371-39-XXXX				Serious eye damage (Category 1), H318 Chronic aquatic toxicity (Category 1), H411
Dinonylphenyl Polyoxyethylene	104-40-5	1-	3	N.D.
Polyethylene Glycol	25322-68-3 EC-No.500-038-2		<3	Not a hazardous substance or mixture

4. FIRST-AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES:

INHALATION: ETHOXYLATED NONYLPHENOL NP-9, N-9.5

****FIRST AID- Remove from exposure area to fresh air immediately. If breathing has stopped, perform artificial respiration. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention immediately.**

SKIN CONTACT: ETHOXYLATED NONYLPHENOL NP-9, N-9.5

****FIRST AID- Remove contaminated clothing and shoes immediately. Wash affected area with waterless cleaner first then soap and large amounts of water until no evidence of chemical remains (approximately 15-20 minutes). Get medical attention immediately.**

EYE CONTACT: ETHOXYLATED NONYLPHENOL NP-9, N-9.5

****FIRST AID- Wash eyes immediately with large amounts of water, occasionally lifting upper and lower lids, until no evidence of chemical remains (approximately 15-20 minutes). Remove contact lenses, if worn, after initial flush. Consult a physician if irritation persists.**

INGESTION: ETHOXYLATED NONYLPHENOL NP-9, N-9.5

****FIRST AID- Do not induce vomiting. Never give anything by**

mouth to an unconscious person. Have patient drink several glasses of water. Consult a physician or poison control center, treat symptomatically.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED INGESTION:

Eye: Mild irritation if washed in 2 to 5 minutes, including tearing, redness and swelling;

Skin: Slightly irritating with prolonged contact;

Inhalation: Mist may cause irritation to the respiratory tract. Symptoms include coughing, sore throat, labored breathing and chest pain.

Ingestion: May cause gastrointestinal tract irritation.

Chronic: Prolonged exposure 24hr+ may cause dermatitis & chemical burns to skin & eyes*; burns heal within a week

Medical Conditions Aggravated by Exposure: Any pre-existing disorders of the eye.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

Specific details on antidote: No recommendation given.

5. FIRE FIGHTING MEASURES

Flash Point: 113°C (235°F) CC

Auto-ignition Temp: N.D.

LEL %:N.D.

UEL %:N.D

UNIFORM FIRE CODE: Combustible Liquid: III-B

5.1 SUITABLE EXTINGUISHING MEDIA: Foam--> x CO2--> x Dry Chemical--> x Water-fog--> x Other-->

Unsuitable extinguishing media: Do not use waterjet.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE: Above the Flash Point explosive vapor/air mixtures may be formed.

CONDITIONS OF FLAMMABILITY:

Flammable in the presence of a source of ignition when the temperature is above the flash point.

HAZARDOUS COMBUSTION PRODUCTS: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including

carbon monoxide, carbon dioxide, carbon oxides and other unidentified organic compounds evolve when this material undergoes combustion.

5.3 ADVICE FOR FIREFIGHTERS:

Shut off source. Keep unnecessary people away; isolate hazard area and deny entry. Avoid breathing vapors, stay upwind Do not spray pool fires directly. A solid stream of water or foam directed into hot burning liquid can cause frothing. Move container from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out. For massive fire in cargo area, use unmanned hose holder or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire. Cool containers with flooding amounts of water from as far a distance as possible. Wear NIOSH/MSHA approved self-contained breathing apparatus for confined spaces. Use full fire-fighting protective clothing. If protective equipment is not available or not used, fight fire from a protected location or safe distance.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Eliminate ignition sources in the vicinity of the spill or released vapor. Immediately evacuate all nonessential people. Verify that responders are properly trained and wearing appropriate respiratory equipment and fire resistant protective clothing during cleanup operations.

6.2 ENVIRONMENTAL PRECAUTIONS:

Keep out of water sources, drains and sewers. Do not flush into surface water, sanitary sewer system or contact with soil. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:

Methods for cleanup and containment:

Use explosion proof equipment. Shut off valves, contain spill, keep out of water sources and sewers, for smaller spills add non-flammable absorbent such as clay or silica in spill area. For large spills use foam on spill to minimize vapors clean up by vacuuming then using non-flammable absorbent. Remove contaminated soil to remove contaminated trace residues.

Methods for disposal:

Place all saturated absorbent, using non-sparking tools, in an approved container for disposal. Flush with water to remove trace residue. Minimize breathing vapors

and skin contact, ventilate confined areas, open all windows and doors, assure conformity with applicable government regulations.

6.4 REFERENCE TO OTHER SECTIONS: See Sections 8 and 13.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING: Liquid evaporates and forms vapor (fumes), which can catch fire and burn. Invisible vapor spreads easily and can be set on fire by many sources, such as pilot lights, welding equipment, and electrical motors and switches. Vapor is heavier than air and can travel considerable distance to a source of ignition and flash back. Avoid breathing vapors in top of shipping container. Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Do not take internally. Avoid breathing vapors in top of shipping container. Avoid work practices that may release volatile components in the atmosphere. Avoid contaminating soil or releasing material into sewage and drainage systems. Use non-sparking tools to open or close containers.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES: Follow maximum allowed pile heights specified in the BOCA codes or the NFPA manual. Local fire authorities should be notified for storage of this material in any quantity. Local permits are required for storage in warehouse quantities. Store large quantities only in buildings designed to comply with OSHA 1910.106. Keep containers tight and upright to prevent leakage. Do not store with incompatible materials. Keep containers closed when not in use.

CONTAINER WARNINGS: Containers should be Bonded and Grounded when pouring. Avoid free fall of liquid in excess of a few inches. Empty containers release residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, or expose such containers to heat, sparks, static electricity or other sources of ignition. Do not attempt to clean. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum re-conditioner.

7.3 SPECIFIC END USES: Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROL (PERSONAL PROTECTION)

8.1 CONTROL PARAMETERS:

Ingredient	CAS No.	% by WT. Range	Exposure Limits
Nonylphenol	9016-45-9	97-99	10mg/m3 TWA (WEEL)
Ethoxylate NP-9, 9.5	EC-No.500-024-6		
Reg.-No.01-2119946371-39-XXXX			

Dinonylphenyl Polyoxyethylene	9014-93-1	1-3	N.E.
Polyethylene Glycol	25322-68-3 EC-No.500-038-2	<3	10mg/m3 TWA (WEEL)

Key: (PEL) = Permissible Exposure Limit OSHA
 (TLV) = Threshold Limit Value OSHA & ACGIH
 (STEL) = Short Term Exposure Limit ACGIH
 (WEEL) = USA. Workplace Environmental Exposure Levels
 (TWA) = Time Weighted Average
 CAS = Chemical Abstracts Registry Number
 IDLH = Immediate Danger to Life and Health
 N.E. =None Established

8.2 EXPOSURE CONTROLS

EXPOSURE GUIDELINES: Consider the potential hazards of this material (Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended.

ENGINEERING CONTROLS: Provide general dilution or local exhaust ventilation in volume and pattern to keep concentrations within permitted exposure limits. All areas should be ventilated in accordance with OSHA Regulation 29 CFR Part 1910. Explosion proof motors should be used in mechanical ventilation.

RESPIRATORY PROTECTION: The specific respirator selected must be based on contamination levels found in the work place, must not exceed the working limits of the respirator and be jointly approved by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration (NIOSH-MSHA):

For vapor concentrations 1 to 10 times OSHA TWA or PEL an air supplied NIOSH/MSHA Approved respirator with full face-piece and organic vapor cartridges. For concentrations over 10 times OSHA TWA or PEL and in confined areas use a approved positive pressure full face-piece supplied air respirator.

BODY CLOTHING:

Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged contact with this substance. Use chemical resistant apron or other impervious clothing. Remove and wash contaminated clothing before reuse.

SKIN PROTECTION:

Employee must wear appropriate protective gloves to prevent contact with this substance.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min

HYGIENE: Use good personal hygiene practices, wash hands before eating, drinking, smoking or using toilet facilities.

EYE/FACE PROTECTION: Use safety eyewear with splash guards or face shield. Emergency shower and eyewash should be easily accessible to the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

Ethoxylated Nonylphenol NP-9, N-9.5 9016-45-9

APPEARANCE:	Viscous liquid
COLOR:	Pale yellow
ODOR:	Mild odor
ODOR THRESHOLD:	No Data Available
pH:	6.5-7.5
MOLECULAR WEIGHT:	620 amu
POUR POINT:	-1°C(30°F)
BOILING POINT:	250 °C (482°F)
SPECIFIC GRAVITY:	1.055@20°C
DENSITY (25°C):	1.055 g/ml@20°C
VAPOR PRESSURE:	<0.01 mm Hg @ 20°C (68.0°F)
VAPOR DENSITY:	14
WATER SOLUBILITY:	Complete
PARTITION COEFFICIENT N-OCTANOL/WATER	log Pow: 3.7 at 25 °C (77 °F)
FLASH POINT:	113°C (235 °F) – closed cup
EVAPORATION RATE (BUTYL ACETATE=1):	No data available
UPPER FLAMMABILITY LIMIT:	No data available
LOWER FLAMMABILITY LIMIT:	No data available
AUTO IGNITION TEMPERATURE:	No data available
DECOMPOSITION TEMPERATURE:	No data available
VISCOSITY:	243cP@25°C (77°F)
EXPLOSIVE PROPERTIES:	No data available
OXIDIZING PROPERTIES:	No data available

9.2 OTHER INFORMATION: No data available

10. STABILITY AND REACTIVITY INFORMATION

10.1 REACTIVITY: No data available.

10.2 CHEMICAL STABILITY: Unstable () Stable (X)

10.3 POSSIBILITY OF HAZARDOUS REACTIONS: No data available

HAZARDOUS POLYMERIZATION: May occur () Will not occur (X)

10.4 CONDITIONS TO AVOID: Heat, Sparks, Pilot Lights, Static Electricity, and Open Flame.

10.5 INCOMPATIBLE MATERIALS: Strong oxidants such as liquid chlorine, oxygen, sodium hypochlorite, inorganic acids e.g. hydrochloric acid, hydrogen peroxide.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS: Fumes, Smoke, Carbon Monoxide, Aldehydes and other decomposition products where combustion is not complete.

11. TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

Routes of Entry: Inhalation--> x Skin--> x Ingestion--> x

ACUTE HEALTH EFFECTS:

Effects of overexposure:

Eye> Mild irritation if washed in 2 to 5 minutes, including tearing, redness and swelling;

Skin> Slightly irritating with prolonged contact;

Inhalation> Mist may cause irritation to the respiratory tract. Symptoms include coughing, sore throat, labored breathing and chest pain.

Ingestion> May cause gastrointestinal tract irritation.

Chronic: Prolonged exposure 24hr+ may cause dermatitis & chemical burns to skin & eyes*; burns heal within a week

Medical Conditions Aggravated by Exposure> Any pre-existing disorders of the eye.

ACUTE TOXICITY:

The effects of overexposure shown in Section II are based on acute toxicity profiles. Typical values are:

Ingredient	Oral LD50 (Rat)	Skin LD50(Rabbit)	Inhalation LC50
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Nonylphenol Ethoxylate NP-9 NP-9.5	960-3980mg/kg	2000-2990mg/kg	1150mg/m3
Dinonylphenyl Polyoxyethylene	N.D.	N.D.	N.D.
Polyethylene Glycol	17000mg/kg	>5000mg/kg	

SKIN CORROSION/IRRITATION: Skin - Rabbit Result: Mild skin irritation

SERIOUS EYE DAMAGE/EYE IRRITATION: Eyes - Rabbit Result: Severe eye irritation

RESPIRATORY OR SKIN SENSITIZATION: Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

MUTAGENIC EFFECTS: No known effect on humans or animals

CARCINOGEN STATUS:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

REPRODUCTIVE TOXICITY: No data available

Specific target organ toxicity (STOT-SE)- single exposure (Globally Harmonized System): no data available

Specific target organ toxicity (STOT-RE) - repeated exposure (Globally Harmonized System): no data available

ASPIRATION HAZARD: No data available

11.2 ADDITIONAL DATA: Nausea, Headache, Vomiting

12. ECOLOGICAL INFORMATION

12.1 AQUATIC TOXICITY;
Toxicity to Fish:

data below for nonylphenol ethoxylates with various degrees of ethoxylation
LC50 Pimephales promelas, (fathead minnow) - 3.87.7mg/L - 96 h
LC50 Lepomis macrochirus (Bluegill) - 1.0 mg/l - 96 h

Toxicity to daphnia and other invertebrates:

LC50 Daphnia magna, (water flea) – 12.2mg/L - 17mg/L – 48 h

Toxicity to Algae:

EC50 (Algae) Scenedesmus quadricauda, (Green algae), 17mg/L

12.2 PERSISTENCE AND DEGRADABILITY: degrades readily but slowly in unacclimated waters, rapidly in acclimated waters, in the presence of oxygen; $\frac{1}{2}$ life between 369days depending on temperature, chain length, & other conditions; biodegradation *tends to be* incomplete, *leaving* nonylphenol, monoand diethoxylates which have biological activity (The structural formula of branched nonylphenol (unethoxylated) bears a striking resemblance to 17 β oestradiol 3 –a potent oestrogen.)

Biological Oxygen Demand (BOD): No data available

12.3 BIOACCUMULATIVE POTENTIAL: Not a bioaccumulator, but biodegradation products (nonylphenol with one, two, or no ethylene oxide) bioaccumulate & mimic hormones, causing sexual dysfunction in shore birds, amphibians & fish at very low doses

Bio-concentration Factor (BCF): no data available

12.4 MOBILITY IN SOIL: No data available

12.5 RESULTS OF PBT AND vPvB :

PBT assessment results: This substance is not classified as PBT or vPvB.

12.6 OTHER ADVERSE EFFECTS: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Water polluting material. May be harmful to the environment if released in large quantities.

13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS: Hazard characteristic and regulatory waste stream classification can change with product use. Accordingly it is the responsibility of the user to determine the proper storage, transportation, treatment and or disposal methodologies for spent materials and residues at time of disposition. Dispose in accordance with all applicable disposal regulations.

CONTAMINATED PACKAGING: Dispose of as unused product.

The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

14. TRANSPORT INFORMATION

This information is for bulk shipping. Not USDOT regulated in non-bulk packaging.

Land Transport (DOT)

14.1 USDOT ID Number-----> UN3082

14.2 USDOT Shipping Name-----> Environmentally hazardous substance,
liquid, n.o.s. (nonylphenol ethoxylated)

14.3 USDOT Hazard Classification-----> 9

USDOT Label Codes-----> 9

14.4 USDOT Package Code-----> III

14.5 Marine Pollutant-----> Yes

14.6 Special precautions for user-----> None

Emergency Response Guide-----> 171

Sea Transport (IMDG)

14.1 ID Number-----> UN3082

14.2 Proper shipping name-----> ENVIRONMENTALLY HAZARDOUS
SUBSTANCE, LIQUID N.O.S. (nonylphenol ethoxylated)

14.3 Hazard Classification-----> 9

Label Codes-----> 9

14.4 Package Code-----> III

14.5 Marine Pollutant-----> Yes

14.6 Special precautions for user-----> N/A

EMS Number-----> F-A, S-F

Air Transport (IATA)

14.1 ID Number-----> UN3082

14.2 Proper shipping name-----> Environmentally hazardous substance,
liquid, n.o.s. (nonylphenol ethoxylated)

14.3 Hazard Classification-----> 9

Label Codes-----> 9

14.4 Package Code-----> III

14.5 Environmental hazard-----> Yes

14.6 Special precautions for user-----> None

15. REGULATORY INFORMATION

**15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION
SPECIFIC FOR THE SUBSTANCE OR MIXTURE:**

SARA TITLE III (Superfund Amendment and Reauthorization Act)

SECTION 302 AND 304: Extremely Hazardous Substance List (40 CFR 355) - Not Listed

SECTION 313: Toxic Chemicals Listing (40 CFR 372.65) - Listed

**GLYCOL ETHERS (FRACTION OF PRODUCT MEETING EPA DEFINITION) Mixture
0.1 – 1.0%**

**SECTION 311/312: Hazard Categorization (40 CFR 370) - Acute Health Hazard,
Chronic Health Hazard**

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)

**SECTION 102(A) Hazardous Substances (40 CFR 302.4) - Not Listed
Reportable Quantity – None**

SECTION 101(14) Reportable Quantity: None

Massachusetts Right to Know Components

No components are subject to the Massachusetts Right to Know Act.