

1. Chemical Product and Company Identification

- A. Product name: NPE9
- B. Suggested purpose & application: Used in nonionic surfactants and cleaners.
- C. Manufacturer/supplier identification:

Kayo Fine Chemicals

Vat. No: 4190233827
Tel. No: 0118933876
Plot 24 Pulp Road
Klippoortjie Agricultural Lots
Germiston

2. Hazards identification

- A. Product dangerous classification:
- Corrosion/skin irritation substance: class 2
- Heavy damage / eye irritator : class 2A
- Reproductive toxic substances : class 2
- Water environmental dangerous substance - acute hazard : class 1
- Specific target organ toxic substances - Repeated exposure: class 2

- B. GHS Symbol pictogram:



- C. Signal word : warning
- D. Dangerous information: The first type of toxic chemical substances: chemical substances that are not easily decomposed in the environment or due to bioaccumulation, bioconcentration, biotransformation, etc., which pollute the environment or

endanger human health.

Irritating to skin / Irritating to the eyes

Suspected of damaging fertility or the unborn child.

Very Toxic to aquatic life.

Long term or repeated exposure may cause injury to the organ.

E. Dangerous protection:

Get instructions before use.

Placement area needs to be locked.

Do not operate this substance until you understand all safety precautions.

Avoid release to the environment.

Use safety goggles/gloves/face/ protective clothing when you handling.

Do not breathe gas/fumes/vapor/spray.

Take off immediately all contaminated clothing.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Do not empty into drains.

F. Other damage:

3. Composition/information on ingredients

Pure material:

- A. Name: Nonylphenol polyethylene glycol ether
- B. Synonyms: Nonyl phenyl polyethylene glycol ether, Oxyethylated nonylpheno, Nonylphenol polyethylene oxide, Nonylphenol ethoxylate, Nonyphenoxy polyethoxy ethanol, Nonoxynol, Polyoxyethylene ether nonylphenol, Oxyethylene nonylphenyl ether, Nonyl phenyl polyethylene glycol, Polyethoxylated nonylphenol, Polyoxyethylated nonylphenol, Nonylphenoxypoly(ethylene oxy) ethanol
- C. CAS No.: 26027-38-3, 9016-45-9
- D. Ingredient (%): 95~100 %(W/W)

Blend mixture:

A. Chemistry performance:

Chinese name of dangerous component	Chemical Abstract Service NO. (CAS No.)	Concentration % or % range
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4. First aid measures

- A. After inhalation : Fresh air.
- B. After skin contact : Wash off with plenty of water. Remove contaminated clothing.
- C. After eye contact : Rinse out with plenty of water with the eyelid held wide open.
- D. After swallowing : Make victim drink plenty of water, induce vomiting. Summon doctor if feeling unwell.

5. Fire-fighting measures

- A. Emergency Response Principles: Principles of Handling 171
- B. Suitable extinguishing media: Water, CO₂, foam, powder.
- C. Special risks: Combustible. Development of hazardous combustion gases or vapors possible in the event of fire.
- D. Special protective equipment for fire fighting: Do not stay in dangerous zone without self-contained breathing apparatus.
- E. Other information: Prevent fire-fighting water from entering surface water or groundwater.

6. Accidental release measures

- A. Person-related precautionary measures: Do not inhale vapours/aerosols. Ensure supply of fresh air in enclosed rooms.
- B. Environmental-protection measures: Waste liquid or wastewater containing this substance may not be discharged directly to the river without treatment.
- C. Procedures for cleaning / absorption: Take up with liquid-absorbent material (e.g. Chemical adsorption cotton). Forward for disposal. Clean up affected area.

7. Handling and storage

- A. Handling: 1. Glass, steel and plastic containers should be used. 2. Avoid contact with oxidants such as nitrates, chlorine bleach, liquid

- chlorine and so on. 3. Avoid contact with strong acids.
- B. Storage: 1. Keep the container close. 2. Storage should be selected dry, cool and well ventilated place. 3. away from strong acid and oxidizing substances, such as nitrate, chlorine bleach, liquid chlorine and so on. 4. Storage containers to avoid physical damage. 5. Keep away from food and drink. 6. Check regularly for leaks or spills.
- C. Storage temperature: Ventilation and shade.

8. Exposure controls/personal protection

- A. Appropriate engineering controls: The working environment should have local exhaust. Provide exhaust ventilation.
- B. Control parameters:
- Internal regulation: --- mg/m³- TWA
 - ACGIH : --- mg/m³- TWA
 - Biological indicators BEIs: LD50: ---mg/kg (Ingestion / Rat: mg/KG)
- C. Individual protection measures :
- Respiratory protection: Use respirator or activated carbon mask.
 - Eye protection: Use goggles. Wash eyes before breaks and at the end of work.
 - Hand protection: Wear PE long sleeve gloves.
 - Skin protection: Protective work clothing.
- D. Industrial hygiene: Change contaminated clothing. Application of skin-protective barrier cream recommended. Wash hands after working with substance.

9. Physical and chemical properties

- A. Appearance : colorless liquid
- B. Odor : N/A
- C. Vaporization velocity : N/A
- D. Melting point :
- E. PH value : 5.5~7.5 (1%aq.)
- F. Boiling point : N/A
- G. Flammability : N/A
- H. Degradation temperature : N/A
- I. Flash point : > 250°C Test method: open cup - closed cup

- J. Autoignition temperature : N/A
- K. Exposition limit : N/A
- L. Vapor pressure : <0.001mmHg(25°C)
- M. Vapor density (air=1) : >1
- N. Density: 1.06±0.01(25°C)
- O. Solubility: Soluble in water

10. Stability and reactivity

- A. Stability: Stable in room temperature, no reaction.
- B. Possible hazardous reactions under special conditions: Heating directly with an open flame may cause burning or high temperature vapor.
- C. Condition to avoid: Avoid heat, flames, sparks and other sources of ignition.
- D. Incompatible materials: N/A
- E. Hazardous decomposition products: N/A

11. Toxicological information

- A. Exposure pathway:
- Skin contact : This substance and hand contact may cause allergies.
 - Inhalation : The high temperature vapor of this substance enters the body through the respiratory tract.
 - Ingestion : Ingestion into the body.
 - Eye contact : This substance is uncomfortable due to eye contact.
- B. Acute toxicity:
- LD50 (oral, rat): >2000 mg/kg. LD50 (dermal, rabbit): 2830 mg/kg.
- C. Subacute to chronic toxicity:
1. Prolonged or repeated skin contact may cause dry skin, irritation, and may even cause dermatitis.
 2. Exposure to alkylphenols may cause male sperm count and fertility decline.
- D. Further toxicological information: Hazardous properties cannot be excluded, but products should be handled with care when handling products properly.

12. Ecological information

- A. Ecotoxicity :
- LC50 (fish): 1.0-11.2 mg/L/96H
 - EC50 (aquatic invertebrates): 86mg/L/48H
 - Bioconcentration factor (BCF): 0.2~1.4
- B. Persistence and degradability :
- Half-life (air) N/A
 - Half-life (water surface) 2.5~35 DAY
 - Half-life (groundwater) N/A
 - Half-life (soil) N/A
- C. Bioaccumulation : Low accumulation in organisms in water.
- D. Mobility in the soil : N/A
- E. Other adverse effects : N/A

13. Disposal considerations

- A. Disposal methods: There are no uniform EC Regulations for the disposal of chemicals or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated in the EC member countries through corresponding laws and regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste.
- B. Packaging: Disposal in compliance with official regulations. Handle contaminated packaging in the same way as the substance itself. If not officially specified differently, non-contaminated packaging may be treated like household waste or recycled.

14. Transport information

- A. UN number: 3082
- B. UN Transportation name: Environmentally harmful liquid substances, not otherwise specified.
- C. Transportation Dangerous Classification: 9
- D. Packing class: III
- E. Marine pollution material (YES / NO): NO
- F. Marine transportation and air transportation: N/A

G. Emergency response principle:

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15. Regulatory information

A. Suitable law: Labors' safety & Hygiene regulation.