

Safety Data Sheet



1. Identification of the Substance/Mixture and the Supplier

Supplier : National Institute of Advanced Industrial Science and Technology (AIST)
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Identity of Substance/Mixture : Certified reference material: NMIJ CRM 5010-a Poly(ethylene glycol) Nonylphenyl Ether
 Recommended Use of the Chemical and Restriction on Use : This certified reference material (CRM) is intended for the calibration of instruments, the validation of measurements, and the evaluation of analytical performance used to determine the average molecular mass and molecular mass distribution of polymers.
 Do not use this reference material for other purposes than testing/research.
 This CRM is a reference material (specified in the Japanese Industrial Standard (JIS) Q 0030).

2. Hazards Identification

GHS Classification: Serious Eye Damage/ Eye Irritation : Hazard Category 2
 Serious eye damage/ Eye irritation : Hazard Category 2A
 Reproductive toxicity : Hazard Category 2
 Specific Target Organ Toxicity/Systemic Toxicity (Repeated Exposure) : Hazard Category 2 (liver, cardiovascular)
 Water environment toxicity (Acute) : Hazard Category 1

GHS label element:



Signal word: Warning

Other Hazards	Dermal irritation.
Statement:	Strong eye irritation. May cause adverse effects on fertility or the unborn child. May cause damage to the following organs through prolonged or repeated exposure (Liver, cardiovascular system) Very toxic to aquatic organisms
Precautionary	[Precaution]
Statement:	Do not breathe dust, mist, vapors, etc. Avoid release to the environment. Do not eat, drink or smoke when using this product. Use appropriate personal protective equipment. Wash personal protective equipment thoroughly after use. Wash hands thoroughly after handling. Use protective globes. When dust is generated, seal the source, and wear respiratory protection equipment. [Action] If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If on skin: Wash with plenty of soap and water. Then Remove/Take off all contaminated clothing and adhered materials. If skin irritation or rash occurs: Get medical advice/attention. Immediately get medical advice/attention if you feel unwell. If exposed or concerned: Get medical advice/attention. Adsorb spillage with waste clothes or wiping clothes, and collect in empty containers. Rinse away the remains with plenty of water. [Storage] Store in a dark and dry environment at temperature of 5 °C. In case of long term it is recommended to store under 5 °C. [Disposal] Dispose of this reference material in accordance with applicable legislation and local government ordinance. Entrust disposal of this reference material to a professional waste disposal company licensed by prefectural governor.
	The other hazards than the above do not result in classification or are not classifiable.

3. Composition/Information on Ingredients

Single substance/Mixture	: Single substance
Chemical name	: Poly(ethylene glycol) Nonylphenyl Ether
Amount	: 99 %
Chemical Formula	or : $C_9H_{19}-C_6H_4O-(C_2H_4O)_i-H$
Structural Formula	
Atomic weight/Molecular	: -

weight

Reference Number in : Act on the Evaluation of Chemical Substances and Regulation
Gazetted List in Japan of Their Manufacture, etc. : (7)-172
Industrial Safety and Health Act : Published
CAS No. : 9016-45-9
Hazardous substance : Poly(ethylene glycol) Nonylphenyl Ether

4. First-aid Measures

If Inhaled : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention immediately.

If on skin : Rinse with a large amount of water and soap. If developing some symptoms, seek diagnostic / medical attention as needed.

If Ingested : Rinse mouth thoroughly with water. Drink a lot of water or milk then it induces vomiting. Immediately call a physician.

If in Eyes : Rinse cautiously with clean water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention immediately.

Protecting Personnel in emergency measures : Wear protective equipment such as rubber gloves, eye protective goggles.

5. Fire-fighting Measures

Extinguishing Media : Powder, foam, carbon dioxide, dry sand, water spray (rod-like water injection prohibited).

Fire-Specific Hazards : In the case of fire, irritating or toxic fume or gas (CO) may be generated. Then use personal protective equipment such as breathing apparatus, circulating oxygen respirator.

Specific Fire-Fighting Method : Eliminate ignition sources at the origin of a fire and put out fire by using extinguishing media. Remove movable containers promptly to a safe place. In the case of immovable containers, cool their surroundings with sprayed water.

Protection of Fire-Fighters : Carry out fire-fighting from the windward in order to avoid breathing hazardous gas. Use personal protective equipment such as fire protection clothing, heat-resistant clothing, protective clothing, breathing apparatus, circulating oxygen respirator, rubber gloves, and rubber boots.

6. Accidental Release Measures

Personal Protective Equipment and Emergency Procedures : Ventilate the affected areas thoroughly, if it is in an indoor environment, until the clean-up operation is completed. Use appropriate personal protective equipment during the operation to avoid skin contact of splash etc. and inhalation of dust and gas.

- Environmental Precautions : Take precautions to prevent spillage from draining into rivers etc. to adversely impact the environment. Make it sure to appropriately treat contaminated wastewater in order to prevent untreated wastewater from being released into the surrounding environment.
- Recovery and Neutralization : Adsorb the spilled liquid to liquid absorbent (sand, diatom earth, acid-binding agent, universal binding agent, sawdust) etc. and collect the contaminated items in an empty container.
- Prevention of Secondary Disaster : Mark the restricted area with rope etc. to keep out unauthorized people. Carry out the clean-up operation from the windward and make people on the leeward side evacuate.

7. Handling and Storage

Handling

- Engineering Precautions : Strict ban on fire.
Keep away from hot surfaces and sparks.
- Local and General Ventilation : Use local ventilation system in indoor handling areas.
- Precautions for Safe Handling : Avoid rough handling such as turning over, dropping, giving a shock to or dragging containers.
Prevent spill, overflow and scattering, and avoid vapor generation.
Keep container tightly closed after using this reference material.
Wash hands, face etc. thoroughly and gargle after handling this reference material.
Do not eat, drink, or smoke during handling
Restrict drinking, eating and smoking to a designated area.
Use appropriate personal protective equipment to avoid inhalation and contact with eyes, skin and clothing.
Do not bring gloves and other contaminated personal protective equipment into staff room.
Make a place handling this reference material a restricted area to keep out unauthorized people.
Electrical equipment to be used in the working location should be explosion-proof structure, and grounded, if necessary.

Storage

- Appropriate Storage Conditions : Keep out of light and stored in a clean place at 25 °C or less. In case of storage for long term storage it is recommended to refrigerated storage at 5 °C or less.
Do not store in the vicinity of strong oxidizing substances and the fire sources.
- Safe Container Packaging Material : Polypropylene

※Please refer CRM certificate about storage conditions as reference material.

- ◇Reactivity
 - No data
- ◇Conditions to Avoid
 - Sunlight, Heat, open flame, high temperature material, spark, static electrical charge, and other fire sources.
- ◇Hazardous Decomposition Products
 - Carbon monoxide (CO), etc.

11. Toxicological Information

Acute Toxicity	No data
Skin corrosivity / irritancy	In the description of a skin irritancy test with rabbits, it says that undiluted solution with two to nine moles of ethylene oxide showed “medium to strong irritancy” (CERI·NITE toxicity evaluation report No.96(2004)).
Critical eye damage / eye irritancy	In the description of an eye irritancy test with rabbits, it says that undiluted solution with two to fifteen moles of ethylene oxide showed “medium to strong irritancy”. Therefore, it is likely to have “strong irritancy”. (CERI·NITE toxicity evaluation report No.96(2004)).
Germ cell mutagenicity	No data
Carcinogenicity	No data
Reproductive toxicity	Although there is no description about general toxicity on parent animals, decreases in pregnancy rate, the number of embryos were observed (CERI·NITE toxicity evaluation report No.96(2004), NITE initial risk evaluation report No.96(2005)).
Specific target organ / systematic toxicity (repeated exposure)	For laboratory animals, there are descriptions such as “increase in relative weight of female liver, fatty change in liver cells of male and female in histopathological inspection”, and “focal necrosis of cardiac muscle in microscopic observation”(NITE initial risk evaluation report No.96(2005)). Therefore it was assumed that the target organs are liver and cardiovascular system. Also, the influence on laboratory animals was seen in the range of values corresponds to Hazard Category 2.

12. Ecological Information

- Persistence and Degradability
 - No data available
- Bioaccumulative Potential
 - No data available
- Ecotoxicity
 - Crustacea (Mysidopsis bahia):48 h LC50=0.11 mg/L (CERI·NITE, hazard assessment report(2005))
 - Fish (Brown trout) :96 h LC50=1.0 mg/L (CERI·NITE, hazard assessment report(2005))

13. Disposal Considerations

- Dispose in accordance with applicable regional, national and local laws and regulations.
 - Dispose of containers after thoroughly removing their contents.
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14. Transport Information

- UN Number : Not applicable
UN : Not applicable
Classification
Shipping Name : -
Packing Group : -
Marine : Not applicable
Pollutant
Precautions : Transport this reference material carefully while keeping it away from direct sunlight and preventing accidental release due to falling, overturning, etc.
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15. Regulatory Information

- ◇ Fire Service Act
 - Hazardous Materials 4 Class 4 petroleum Danger Rating 3
 - ◇ Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.
 - Type III Monitoring Chemical Substances No.43
 - ◇ Pollutant Release and Transfer Register (PRTR) Law
 - Class 1 Designated Chemical Substance No.410
 - ◇ Act for the Prevention of Marine Pollution and Maritime Disasters
 - Enforcement Order Appendix 1 Hazardous Liquid Substance Class Y Substance
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16. Other Information

Others

The information in this document is not intended to be exhaustive and is based on currently available information and data. The measures given in this document are applicable only to normal handling conditions. When handling this reference material under special conditions etc., it is recommended to take safety measures appropriate to each specific application and context of use. This document is intended to provide information and not intended to guarantee anything in handling this reference material.
