

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 5011-a
 Poly(ethylene glycol) (23mer)
 Recommended Use of the Chemical and Restriction on Use : This reference material can be used, in measurement of molecular weight of polymer compounds, for calibration of measurement equipment as well as quality control of measurement and validation of measurement method. 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: Skin corrosion/irritation : Hazard Category 3
 Serious eye damage/ Eye irritation : Hazard Category 2B
 GHS Label Element: -
 Signal Word: Warning
 Hazards Statement: Eye irritation
 Mild skin irritation
 Other Hazards Statement: Few hazards under normal use
 Harmful if taken in large amount.
 Combustible
 Precautionary Statement:: [Precaution]
 Watch out for fire as this reference material is combustible.
 Avoid contact with oxidizers.
 [Action]
 If swallowed: Give plenty of water to induce vomiting.
 Get medical advice/attention.
 If in eyes: Rinse cautiously with clean water for several minutes.
 Remove contact lenses, if present and easy to do. Continue rinsing.
 Wash hands after handling.
 If eye irritation persists or If skin irritation occurs: Get medical advice/attention.
 [Storage]

Store in a light-shielded clean place at temperature of 25 °C or below. In case of long-term storage, it is recommended to refrigerate this reference material at temperature of 5 °C or below.

[Disposal]

Comply 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

Substance/Mixture	:	Substance
Chemical Identity	:	Poly(ethylene glycol)
Synonym	:	Polyoxyethylene
Content	:	99 % or more
Chemical Formula or Structural Formula	:	HO(-CH ₂ CH ₂ O-) ₂₃ H
Molecular Weight	:	1031.2
Reference Number in Gazetted List in Japan	:	Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. : (7)-129 Industrial Safety and Health Act : Published-
CAS Number	:	25322-68-3
Hazardous Ingredient	:	Nothing special

4. First-aid Measures

If in eyes	:	Rinse with clean water thoroughly. Get medical advice/attention.
If on skin	:	Rinse with clean water thoroughly. Remove/Take off contaminated clothing, shoes, etc. Get medical advice/attention.
If inhaled	:	Remove victim to fresh air and keep him/her warm and at rest. Get medical advice/attention.
If swallowed	:	Give water or salt solution to induce vomiting. Do not give anything to an unconscious person. Call a doctor/physician.
Expected Acute and Delayed Symptom	:	-
Most Critical Characteristic and Symptom	:	-
Protection of First-Aid Responder	:	First-aid responder must wear personal protective equipment such as rubber gloves and tightly-sealed goggle.

5. Fire-fighting Measures

Extinguishing Media	:	Dry chemical extinguisher, Foam extinguishing agent for water-soluble liquids, Carbon Dioxide, Sand, Sprayed water
Fire-Specific Hazards	:	No risks of ignition or catching fire in general environment. As combustion gas contains carbon monoxide, NO _x , CN, etc., carry out fire-fighting from the windward as much as possible in order to avoid breathing the hazardous gases.
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. Carry out fire-fighting from the windward in order to avoid breathing hazardous gas.

Protection of Fire-Fighters : Protective clothing, Compressed air open-circuit self-contained breathing apparatus, Compressed oxygen closed-circuit self-contained breathing apparatus.

6. Accidental Release Measures

Personal Precaution : Remove potential ignition sources from the vicinity promptly. Get fire-fighting kit ready to be prepared for ignition.

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 : Collect spillage in empty containers by getting it adsorbed to wiping cloth, rag or earth and sand, etc. Rinse away the remains with plenty of water.

Prevention of Secondary Disaster : -

7. Handling and Storage

Handling

Engineering Precautions : Avoid contact with strong oxidizers.

Local and General Ventilation : Use local ventilation system in indoor handling area.

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 use. Wash hands, face etc. thoroughly and gargle after handling this reference material. 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. Use appropriate personal protective equipment to avoid inhalation and contact with eyes, skin and clothing.

Storage

Appropriate Storage Conditions : Store in a light-shielded clean place at temperature of 25 °C or below. In case of long-term storage, it is recommended to refrigerate this reference material at temperature of 5 °C or below.

Safe Container Packaging Material : Glass

Incompatible Materials : Avoid storing this reference material together with oxidizers and strongly-oxidizing substances.

8. Exposure Controls/Personal Protection

Threshold Limit Value

Not specified

Permissible Concentration

Not specified

Engineering Controls

◇Storage Precaution

- Store in tightly-closed container in a light-shielded clean place at temperature of 25 °C or below. In case of long-term storage, it is recommended to refrigerate this reference material at temperature of 5 °C or below.
- Keep container tightly closed and install local ventilation system when dust is

generated.

Personal Protective Equipment (PPE)

- Protective mask, Protective gloves, Eye protector, Eye protector with side plates (Goggle type as necessary), Protective clothing

9. Physical and Chemical Properties

- Appearance, etc. : Solid
- Color : Colorless
- Odor : No data
- pH : No data
- Melting point : No data
- Boiling point : No data
- Flashing point : No data
- Explosive range : No data
- Vapor pressure : No data
- Relative vapor density(Air=1) : No data
- Specific gravity or bulk specific gravity : No data
- Solubility : No data
- *n*-Octanol/water partition coefficient (Log Po/w) : No data
- Auto-ignition temperature : No data

10. Stability and Reactivity

◇Stability

- No data available

◇Reactivity

- No data available

◇Conditions to Avoid

- Sunlight, Heat

◇Hazardous Decomposition Products

- Carbon monoxide

11. Toxicological Information

Acute Toxicity	Intravenous	Cat	TDL ₀ : 1000 mg/kg (RTECS)
Skin Corrosion/ Irritation	Skin irritation	Rabbit	500 mg/24 hours Mild (RTECS)
Serious Eye Damage/ Eye Irritation	Eye irritation	Rabbit	500 mg/24 hours Mild (RTECS)

12. Ecological Information

Persistence and Degradability

Degradability: 56 % by BOD (n=4) (METI Existing Chemical Substance Safety Check)

Degradability: 53 % by BOD (n=10) (METI Existing Chemical Substance Safety Check)

Bioaccumulative Potential

No data available

Ecotoxicity

No data available

13. Disposal Considerations

Residual Waste	:	Dispose in accordance with applicable regional, national and local laws and regulations.
Contaminated Container and Package	:	Dispose in accordance with applicable regional, national and local laws and regulations.

14. Transport Information

UN Number : Not applicable

UN : Not applicable

Classification

Shipping Name : -

Precautions : Transport this reference material carefully while keeping it away from direct sunlight and fire and preventing accidental release due to falling, overturning, etc. Protect from light. 25 °C or below.

15. Regulatory Information

◇Act for the Prevention of Marine Pollution and Maritime Disasters

- Hazardous Liquid Substance (Class Z substance) (Enforcement Order Appendix 1) 【117 Poly(ethylene glycol)】

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.
