Safety Data Sheet

1. Identification of the Substance/Mixture and the Supplier

Supplier	:	National Institute of Advanced Industrial Science and Technology (AIST)
Address	:	1-3-1 Kasumigaseki, Chiyoda, Tokyo, Japan
Office in Charge	:	Reference Materials Office, Center for Quality Management of Metrology, National Metrology Institute of Japan
Person in Charge	:	Certified Reference Material Staff
Telephone No.	:	+81-29-861-4059 Fax No. : +81-29-861-4009
Emergency Contact	:	Same as above
		Prepared on : Aug. 29, 2007
		Revised on : June 9, 2020
		ID Number : 5007001
Identification of the Material	:	Certified Reference Material NMIJ CRM 5007-a Poly(ethylene glycol) 1500
Recommended Use of the Chemical and Restriction on Use	:	This CRM is intended for use in 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.

2. Hazards Identification

GHS Classification	:	Skin corrosivity／irritant	: Class 3
		Severe damage to eyes／eye irritant	: Class 2B
GHS Label Element	:	-	
Signal word	:	Warning	
Hazard and toxicity	:	Eye irritant Mild skin irritant	
Other hazard and Toxicity	:	When handled under normal condition, hazard is low Large amount intake harmful Combustible	
Precautionary statement	:	[Preventive measures] Avoid open flame or fire sources due to the combustibility Avoid contact with oxidizers [Response] If swallowed : Drink a large amount of water and induce vomiting. Get medical advice. If in eyes : Rinse carefully with water for few minutes, then, if contact lenses are inserted, remove them if possible, and continue rinsing.	

Wash hands after the handling
If eye irritation persists or skin irritation occurs, get medical assistance
[Storage]
This CRM should be stored at a temperature of 25 °C or below in a clean place and shielded from light. However, in case of long-term storage of 1 month and more, the CRM should be stored in a clean place at a temperature of 5 °C or below.
[Disposal]
Outsource to a professional industrial waste disposal contractor licensed by the prefectural governor.
Hazardous and toxic properties not specified in the above are neither the object of the classification nor classifiable.

3. Composition/Information on Ingredients

Single or compound product	:	Single product
Chemical name	:	Polyethylene glycol
Other name	:	Polyoxyethylene
Chemical formula or structural formula	:	HO(-CH2CH2O-)iH ('i'is polymerization degree)
Molecular weight	:	Weight-average moeuclar weight (M_w) : 1601.0 Number-average molecular weight (M_n) : 1560.6
CAS number	:	25322-68-3
Content	:	Over 99.9 %
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

4. First-aid Measures

If in eyes	:	Rinse with plenty of clean water. Get medical assistance.
If on skin	:	Rinse with plenty of clean water. Take off the contaminated clothes and shoes, etc. Get medical assistance.
If inhaled	:	Move to get some fresh air、rest, keep warm. Get medical assistance.
If swallowed	:	Drink water or saline solution to induce vomiting. If unconscious, do not take anything. Contact medical doctor.
Anticipated acute and delayed symptoms	:	-
Most important characteristics and symptoms	:	-

Measures to be taken to protect the person	:	Use personal protective equipment such as rubber gloves, side shielded safety goggles, etc.

5. Fire-fighting Measures

Extinguishing media	:	Powder、alcohol-resistant foam、carbon-dioxide, sand, water spray
Specific hazards at the time of fire	:	Neither flammable nor ignitable under general condition. When possible, to avoid inhaling carbon monoxide, NOx、CN, etc. in flammable gases, extinguishing activity should be on the windward side
Specific extinguishing measures	:	Remove fire sources and extinguish using appropriate agent compatible with the substance. Movable container should be transferred to a safe place promptly. If impossible to transfer, use water spray to cool the periphery. Extinguishing activity on windward side to avoid inhaling toxic gases.
Protecting fire-fighting personnel	:	Protective clothes、air breathing apparatus、self-contained compressed oxygen breathing apparatus、rubber boots

6. Accidental Release Measures

Personal precautions	:	Promptly remove any fire source from around the substance. Ready for a fire by keeping an appropriate extinguisher at hand.
Protective equipment and emergency procedure	:	If released indoor, ventilate well until the treatment is completed. Use appropriate protective equipment to protect the skin from the airborne droplets and avoid inhaling dust and gas
Environmental precaution	:	To prevent causing environmental impact, the spilled material should not be released into rivers, etc. directly. The contaminated waste water should be treated appropriately before discharged to the environment.
Recovery, neutralization	:	Open flame or other sources of ignition prohibited. The spilled liquid should be adsorbed to waste cloth or to sand and soil and wiped off completely. Everything used to clean up the spillage should be collected in an airtight container; then wash away with a large amount of water.
Measures to prevent secondary accident	:	-

7. Handling and Storage

Handling

Technological counter measures	:	Avoid contact with strong oxidizers
Local ventilation/	:	Use local exhaust ventilation system when handling indoor.

general ventilation

Precautions for safe handling : The container should not be handled roughly, no dropping, knocking down or dragging.
Prevent leakage, spillage or overflow that causes fume to form.
Seal the container after the use.
Wash hands and face, etc. well and gargle after the handling.
Take off the contaminated protective equipment used when handling before entering the rest area.
Entering the handling area only by the authorized persons.
Use appropriate protective equipment to prevent inhaling, coming in contact with eyes, skin and the clothing.

Storage

Appropriate condition : This CRM should be stored at a temperature of 25 °C or below in a clean place and shielded from light. However, in case of long-term storage of 1 month and more, the CRM should be stored in a clean place at a temperature of 5 °C or below.

Material for safe packing : Polypropylene

8. Exposure Controls/Personal

Consideration for the safety management

Not established

Occupational exposure limit

Not established

Facility engineering

◇Storage precaution

・Protect from light, in a sealed container, in a clean place at a temperature of 25 °C or below. However, in case of long-term storage of 1 month and more, the CRM should be stored at a temperature of 5 °C or below.

・If discharging dust, seal the source and install local ventilation system.

Protective equipment

・Protective mask、protective gloves、protective eyeglasses、protective eyeglasses with side shields (goggles, if necessary)、protective clothing.

9. Physical and Chemical Properties

・Appearance, etc.	:	Wax（5 °C）
・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 TDLo : 1000 mg/kg (RTECS)
Skin corrosivity／irritant	Skin irritation rabbit 500 mg/24H mild (RTECS)
Damages to eyes/eye irritant	Eye irritation rabbit 500 mg/24H mild (RTECS)

12. Ecological Information

Degradability, concentration
Degree of degradation : 56 % by BOD(n＝4)(METI:Safety Examination of Existing Chemicals and Safety Programmes in Japan)
Degree of degradation : 53 % by BOD(n＝10) (METI:Safety Examination of Existing Chemicals and Safety Programmes in Japan)
Bioaccumulation : No data available
Ecotoxicity : No data available

13. Disposal Considerations

Incineration method : Dissolve the material in flammable solvent and spray it into an incineration chamber equipped with scrubber. Its waste water should be drained after activated sludge method is taken.

14. Transport Information

UN Number : Not applicable
UN : Not applicable
Classification
Material name : -

Precautions : Transfer with caution by avoiding direct sunlight and fire source at the temperature below 25 °C. Protect from leakage or spill due to fall or drop.

15. Regulatory Information

None

◎ **This SDS is originally prepared for the use of the material in Japan, thus the stated laws and regulations are stipulated and carried out in Japan. The use of the material in other countries should be referred to and by application of the relevant laws and regulations of the country in which the material will be used.**

16. Other Information

Other

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.