Safety Data Sheet

National Institute of Advanced Industrial Science and Technology
AIST

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 (NMIJ)
Person in Charge	:	Person in Charge of Certified Reference Materials
Telephone No.	:	+81-29-861-4059 Fax No. : +81-29-861-4009
Emergency Contact	:	Same as above
		Prepared on : May13, 2011
		Revised on : March 31, 2017
		ID Number : 7508001
Identity of Substance/Mixture	:	Certified Reference Material NMIJ CRM 7508-a Cabbage powder (Multi residue pesticide analysis)
Recommended Use of the Chemical and Restriction on Use	:	This reference material can be used for controlling the precision of analysis or confirming the validity of analytical methods or instruments during analysis of pesticides (Fenitrothion, Chlorpyrifos and Permethrin) in cabbage samples and similar materials. Do not use this reference material for other purposes than testing/research.

2. Hazards Identification

GHS classification	:	Not classifiable
GHS label element	:	Not classifiable
Signal Word		-
Hazard and toxicity	:	-
Other hazard and toxicity	:	If inhaled in a large amount, the accumulation in respiratory organ causes impairment.
Precautionary statement	:	[Preventive measures] Low in hazard when handled normally [Response] If inhaled the dust in a large amount, get assistance of respiratory specialist. If in eyes, rinse with a large amount of water and get medical assistance if necessary. [Storage] Protect from light and at the temperature of about −30 °C [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

Substance or mixture	:	Mixture
Generic Name	:	Cabbage

Component 1

Chemical name	:	Cabbage powder
Synonym	:	-
Chemical or structural formula	:	-
Molecular weight	:	-
CAS number	:	-
Content	:	
Reference Number in Gazetted List in Japan	:	Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. : - Industrial Safety and Health Act : -

Component 2

Chemical name	:	Fenitrothion
Synonym	:	(Thiophosphoric acid *O*,*O*-dimethyl-*O*-(3-methyl-4-nitrophenyl))
Chemical or structural formula	:	$C_9H_{12}NO_5PS$
Molecular weight	:	277.23
CAS number	:	122-14-5
Content	:	2.41 mg/kg
Reference Number in Gazetted List in Japan	:	Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. : (3)-2616 Industrial Safety and Health Act : 4-9-232

Component 3

Chemical name	:	Chlorpyrifos
Synonym	:	*O*,*O*-Diethyl-*O*-(3,5,6-trichloro-2-pyridyl)phosphorothioate
Chemical or structural formula	:	$C_9H_{11}Cl_3NO_3PS$
Molecular weight	:	350.58
CAS number	:	2921-88-2
Content	:	6.9 mg/kg
Reference Number in Gazetted List in Japan	:	Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. : (5)-3724
	:	Industrial Safety and Health Act : 8-1-1042

Component 4

Chemical name	:	Permethrin
Synonym	:	(3-phenoxybenzyl=3-(2,2-dichlorovinyl)-2,2-dimethylcyclopr

opanecarboxylate)

Chemical or structural formula	:	$C_{21}H_{20}Cl_2O_3$
Molecular weight	:	391.29
CAS number	:	52645-53-1
Content	:	5.75 mg/kg
Reference Number in Gazetted List in Japan	:	Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. : (3)-4010
	:	Industrial Safety and Health Act : Published

4. First-aid Measures

If in eye	:	Rinse well with clean water. Get medical assistance
If on skin	:	Rinse well with clean water. Take off the contaminated clothing and shoes, etc. Get medical assistance
If inhaled	:	Move to a fresh air, rest and keep warm. Get medical assistance.
If swallowed	:	Rinse well inside the mouth with water. Get medical assistance
Anticipated acute and delayed symptoms	:	-
Measures to protect the person applying emergency first aid:	:	Use personal protective equipment.

5. Fire-fighting Measures

Extinguishing media	:	Fire extinguishing media corresponding to the fire in the surrounding area
Specific hazards at the time of fire	:	None
Specific extinguishing measures	:	Remove combustion sources away from the fire and extinguish with fire extinguishing agent. If possible, promptly transfer the container to safe area. If unable to transfer, cool down the periphery with water spray.
Protecting fire-fighting personnel	:	Extinguishing activities on windward side, avoid inhaling toxic gas. Use protective equipment such as fire-resistant clothing, heat-resistant protective clothing, protective clothing, air-breathing apparatus, closed-circuit self-contained oxygen breathing apparatus, rubber gloves, rubber boots, etc.

6. Accidental Release Measures

Personal precautions	:	Remove ignition sources nearby promptly. Keep extinguishing equipment close at hand in case of ignition.
Protective equipment and emergency procedure	:	If in the indoor, ventilate well until the spill or leak is treated completely. Use appropriate protective equipment to prevent the skin from contact with airborne droplets or to protect from inhaling dust and gas.

Environmental precaution	:	-
Recovery neutralization	:	-
Measures to prevent secondary accident	:	Collect as much as possible in an empty container by a method that can prevent the dust to scatter

7. Handling and Storage

Handling	:	Avoid contacting with eyes. Avoid inhaling the dust. This material should be used only for study purposes.
Storage	:	Protect from light, at the temperature of about −30 °C.
Material for safe packing	:	Glass

8. Exposure Controls/Personal Protection

Administrative levels

Not established

Occupational exposure limit (Substance name)

・ACGIH TLV-TWA (2000)	:	Not established
・Japan Society for Occupational Health Recommended Reference (1998)	:	Not established
・OSHA PEL TWA	:	Not established

Facility engineering

・In case of exuding dust, seal the source and install local ventilation system.

Protective equipment

・Dust protecting mask、protective gloves、safety eyeglasses

9. Physical and Chemical properties

・Appearance, etc.	:	Powder
・Color	:	Green
・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	:	A part of the constituent may dissolve in water.
・*n*-Octanol/water partition	:	No data

coefficient (Log Po/w)
・Auto-ignition temperature : No data

10. Stability and Reactivity

◇Stability
・Stable under normal condition
◇Reactivity
・No data available
◇Conditions to avoid
・Sunlight, humidity
◇Hazardous decomposition products
・No data available

11. Toxicological Information

Severe damage to eyes/ eye irritation	Irritation possible
Respiration organ sensitivity	If inhaled in a large amount, the accumulation in respiratory organ causes impairment.

12. Ecological Information

Degradability, concentration
・No data available
Bioaccumulation
・No data available
Ecotoxicity
・No data available

13. Disposal Considerations

・Disposal should be according to the related laws and regulations as well as to the ordinances of the local government.
・Before disposing the empty container, the content should be completely discarded,

14. Transport Information

UN Number	:	Not applicable
UN Classification	:	Not applicable
Material name	:	—
Container grade	:	—
ICAO/IATA	:	—
Marine pollutant	:	—

Precautions : Avoid direct sunlight. Prevent the container from dropping, falling, etc. and transport carefully.

15. Regulatory Information

・No applicable laws and regulations

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.