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

Identity of Substance/Mixture: Certified reference material: NMIJ CRM 7509-a
Recommended Use: Pesticides in Soybean

Recommended Use of the Chemical and Restriction on Use:
This reference material can be used, in quantification of pesticides in soybean and similar samples, for quality control of analysis and validation of analysis method/equipment. 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 Statement:
Other Hazards: Inhalation of a large amount of dust will cause damage due to accumulation in respiratory organ.
Precautionary Statement:
[Precaution]
[Action]
If dust is inhaled in large amount: Get medical advice/attention of respiratory doctor/physician.
If in eyes: Rinse with plenty of clean water. Get medical advice/attention as necessary.
[Storage]
Store in a light-shielded environment at temperature of about −30 °C.
[Disposal]
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

<table>
<thead>
<tr>
<th>Substance/Mixture</th>
<th>Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generic Name</td>
<td>Soybean</td>
</tr>
</tbody>
</table>

#### Component 1

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Soy bean powder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonym</td>
<td></td>
</tr>
<tr>
<td>Chemical or structural formula</td>
<td></td>
</tr>
<tr>
<td>Molecular weight</td>
<td></td>
</tr>
<tr>
<td>CAS number</td>
<td></td>
</tr>
<tr>
<td>Content</td>
<td></td>
</tr>
<tr>
<td>Reference Number in Gazetted List in Japan</td>
<td>Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.</td>
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<tr>
<td></td>
<td>Industrial Safety and Health Act</td>
</tr>
</tbody>
</table>

#### Component 2

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Diazinon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonym</td>
<td>$O,O$-diethyl-$O$-(2-isopropyl-6-methyl-4-pyrimidinyl) thionophosphate</td>
</tr>
<tr>
<td>Chemical or structural formula</td>
<td>$C_{12}H_{21}N_{2}O_{3}PS$</td>
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<tr>
<td>Molecular weight</td>
<td>304.34</td>
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<tr>
<td>CAS number</td>
<td>333-41-5</td>
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<tr>
<td>Content</td>
<td>21.7 μg/kg</td>
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<tr>
<td>Reference Number in Gazetted List in Japan</td>
<td>Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.</td>
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<td>Published</td>
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</tbody>
</table>

#### Component 3

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Fenitrothion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonym</td>
<td>$(O,O$-dimethyl-$O$-(3-methyl-4-nitrophenyl) thionophosphate)</td>
</tr>
<tr>
<td>Chemical or structural formula</td>
<td>$C_{9}H_{12}NO_{5}PS$</td>
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<tr>
<td>Molecular weight</td>
<td>277.23</td>
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<tr>
<td>CAS number</td>
<td>122-14-5</td>
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<tr>
<td>Content</td>
<td>88 μg/kg</td>
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<tr>
<td>Reference Number in Gazetted List in Japan</td>
<td>Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.</td>
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<td></td>
<td>3-2616</td>
</tr>
<tr>
<td></td>
<td>Industrial Safety and Health Act</td>
</tr>
</tbody>
</table>

#### Component 4
Chemical name: Chlorpyrifos
Synonym: O,O-diethyl-O-3,5,6-trichloro-2-pyridyl phosphorothioate
Chemical or structural formula: C₉H₁₁Cl₃NO₃PS
Molecular weight: 350.58
CAS number: 2921-88-2
Content: 11.1μg/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 5
Chemical name: Permethrin
Synonym: 3-phenoxybenzyl=3-(2,2-dichlorovinyl)-2,2-dimethyl cyclopropane carboxylate
Chemical or structural formula: C₂₁H₂₀Cl₂O₃
Molecular weight: 391.29
CAS number: 52645-53-1
Content: 20.1μg/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 inhaled: Remove victim to fresh air and keep him/her warm and at rest. Get medical advice/attention.
If on skin: Rinse skin thoroughly with clean water. Remove/Take off contaminated clothing, shoes, etc. Get medical advice/attention.
If in eyes: Rinse thoroughly with clean water. Get medical advice/attention.
If swallowed: Rinse mouth thoroughly with water. Call a doctor/physician.
Expected Acute and Delayed Symptom: 
Most Critical Characteristic and Symptom: 
Protection of First-Aid Responder: Use personal protective equipment.

5. Fire-fighting Measures
Extinguishing Media: Extinguishing media appropriate for surrounding facilities
Fire-Specific Hazards: None
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 fireproof clothing, heat-resistant clothing, protective clothing, compressed air open-circuit self-contained breathing apparatus, compressed oxygen closed-circuit self-contained breathing apparatus, rubber gloves and rubber boots.

6. Accidental Release Measures

Personal Precaution: Remove potential ignition sources from the vicinity promptly.
Personal Protective Equipment and Emergency Procedures: Get fire-fighting kit ready to be prepared for ignition.
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:
Recovery and Neutralization: Collect spillage in empty containers as much as possible by using a method which prevents dust from scattering.

7. Handling and Storage Precautions

Handling
- Avoid contact with eyes.
- Avoid inhalation of dust.
- Do not use this reference material for other purposes than research.

Storage
- Store in a light-shielded clean environment at temperature of about –30 °C.
Safe Container: Glass
Packaging Material
※See the certificate for the details of appropriate storage conditions and precautions for safe handling as a reference material.

8. Exposure Controls/Personal Protection

Threshold Limit Value
Not specified

Permissible Concentration
- ACGIH TLV-TWA: Not specified
- Value recommended by Japan Society for Occupational Health: Not specified
- OSHA PEL TWA: Not specified

Engineering Controls
· Keep container tightly closed and use local ventilation system if vapor is generated.

Personal Protective Equipment (PPE)
· Dust mask, Protective gloves, Eye protector

9. Physical and Chemical Properties
· Appearance, etc. : Powder
· Color : Light yellow
· 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 : Some ingredients may soluble in water
· n-Octanol/water partition coefficient (Log Po/w) : No data
· Auto-ignition temperature : No data

10. Stability and Reactivity
◇ Chemical Stability
· Stable under normal conditions
◇ Reactivity
· No data available
◇ Conditions to Avoid
· Sunlight, heat
◇ Incompatible Materials
· No data available
◇ Hazardous Decomposition Products
· No data available

11. Toxicological Information
Serious Eye Damage/ Eye Irritation : May cause irritation
Respiratory Sensitization : Inhalation of a large amount of dust will cause damage due to accumulation in respiratory organ.

12. Ecological Information
Ecotoxicity
· No data available
Persistence and Degradability
No data available
Bioaccumulative Potential
No data available
Mobility in Soil
No data available

13. Disposal Considerations
• Dispose of this reference material in accordance with applicable legislation and local government ordinance.
• Dispose of containers after thoroughly emptying them.

14. Transport Information
UN Number : Not applicable
UN Classification : Not applicable
Shipping Name : —
Packing Group : —
Marine : —
Pollutant : —
Precautions : Transport this reference material carefully while keeping it away from direct sunlight and taking precautions against falling, overturning, etc.

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.