This product is a chemical substance and is intended to be used by persons having chemical knowledge and skill, at their own discretion and risk.

**Material Safety Data Sheet (MSDS)**

This product is a chemical substance and is intended to be used by persons having chemical knowledge and skill, at their own discretion and risk.

**Section 1. Chemical Identification**

<table>
<thead>
<tr>
<th>Trade Name:</th>
<th>Alq$_3$. sublimed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Code:</td>
<td>T203</td>
</tr>
<tr>
<td>Manufacturer:</td>
<td>Dojindo Laboratories</td>
</tr>
<tr>
<td>Address:</td>
<td>Tabaru 2025-5 Mashiki-machi, Kamimashiki-gun, Kumamoto 861-2202, Japan</td>
</tr>
<tr>
<td>Telephone:</td>
<td>+81-96-286-1515</td>
</tr>
</tbody>
</table>

**Section 2. Hazard Statement**

**Health Hazards (Acute and Chronic):**
May be harmful by inhalation, ingestion, or skin absorption. Causes eye and skin irritation.
Material is irritating to mucous membranes and upper respiratory tract.

**Hazard Class:** Not applicable

**Signs and Symptoms of Exposure:** Not available

**Medical Conditions Generally Aggravated by Exposure:** Not available

**Exposure:**

**Physical and Chemical Hazard:**

- Not categorical

**Health Hazard:**

- Acute toxic (oral): Not categorical
- Acute toxic (skin): Not categorical
- Acute toxic (inhalation): Not categorical
- Skin corrosion/ Skin irritation: Not categorical
- Serious eye damage/ Eye irritation: Not categorical
- Respiratory sensitizer: Not categorical
- Skin sensitizer: Not categorical
- Germ cell Mutagen: Not categorical
- Carcinogen: Not categorical
- Germ toxic: Not categorical
- Target internal organs/ general toxic: Not categorical
  (individual single exposure):
- Target internal organs/ general toxic: Not categorical
  (repeated exposure):
- Respiratory hazard: Not categorical

**Ecology Hazard:**

- Aquatic ecology acute hazard: Not categorical
- Aquatic ecology chronic hazard: Not categorical

**Signal Word:** Not signal word

**Hazard Statement:** None

**Precautionary Statement:** None

**Precaution:** -

**First-aid:** -

**Storage:** -

**Disposal:** -

**Section 3. Composition / Information on Ingredients**

<table>
<thead>
<tr>
<th>Ingredient/Content:</th>
<th>98.5% up</th>
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</thead>
<tbody>
<tr>
<td>Molecular Formula:</td>
<td>C$<em>3$H$</em>{18}$AlN$_3$O$_3$</td>
</tr>
<tr>
<td>Molecular Weight:</td>
<td>459.43</td>
</tr>
<tr>
<td>CAS Registry #:</td>
<td>2085-33-8</td>
</tr>
</tbody>
</table>
**Section 4. First Aid Procedures**

In case of contact with eyes, immediately flush eyes with copious amounts of water for at least 15 minutes.

In case of contact, immediately wash skin with soap and copious amounts of water. Assure adequate flushing of the eyes by separating the eyelids with fingers. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If ingested, wash out mouth with water. Call a physician. Discard contaminated clothing and shoes.

### Section 5. Fire and Explosion Hazard Data

- **Flash Point (Method Used):** Not available
- **Flammable Limits:** Not available
- **Extinguishing Media:** Carbon dioxide, dry chemical powder, foam, water.
- **Special Fire Fighting Procedures:**
  - Wear protective clothing, respirator, chemical safety goggles, rubber boots and heavy rubber gloves.
  - Fire may produce irritating or poisonous gases.

### Section 6. Accidental Release Measures

Steps to be Taken in Case Material is Released or Spilled:

- Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves. Evacuate area. Sweep up, place in a bag and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete. Avoid raising dust.

### Section 7. Handling and Storage

- Wear appropriate NIOSH/MSHA-approved respirator, chemical-safety goggles, chemical-resistant gloves.
- Wear protective clothing. Mechanical exhaust required. Use only in a chemical fume hood. Safety shower and eye bath. Face shield.
- Do not breathe dust. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling. Irritant. Avoid all contact. Avoid prolonged or repeat.
- Other Precautions: Keep tightly closed. Store in a cool, dark and dry place.

### Section 8. Exposure Controls / Personal Protection

- **Respiratory Protection (Specify Type):** Necessary
- **Ventilation. Local Exhaust:** Chemical fume hood
- **Mechanical (General):** Necessary
- **ACGIH:** Not available
- **Protective Gloves:** Chemical-resistant gloves
- **Eye Protection:** Chemical-safety goggles
- **Other protective clothing or equipment:** Necessary
- **Work / Hygienic Practices:** Wash thoroughly after handling. Access to a safety shower and eye-wash. Do not permit eating, drinking or smoking near material.

### Section 9. Physical / Chemical Characteristics

- **Melting Point:** Not available
- **Boiling Point:** Not available
- **Specific Gravity (water=1):** Not available
- **Vapor Pressure:** Not available
- **Vapor Density (air=1):** Not available
- **Evaporation Rate (butyl acetate=1):** Not available
- **Solubility in Solvent:** Soluble (Alcohol, chloroform)
- **Appearance and Odor:** Yellow or yellowish green powder

### Section 10. Reactivity Data

- **Stability:** Stable
- **Conditions to Avoid:** Heat, sunlight, high temperature
- **Incompatibility (Materials to Avoid):** Strong oxidizing agents, strong acids and strong bases
- **Hazardous Decomposition or Byproducts:**
  - When decomposed, it may emit toxic fumes of carbon monoxide, carbon dioxide, nitrogen oxides and aluminum oxides.
Hazardous Polymerization: Will Not Occur

**Section 11. Toxicological Information**

<table>
<thead>
<tr>
<th>Description</th>
<th>Data Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Effects:</td>
<td>Data not available</td>
</tr>
<tr>
<td>Chronic Effects:</td>
<td>Data not available</td>
</tr>
<tr>
<td>Carcinogenicity:</td>
<td>Data not available</td>
</tr>
<tr>
<td>RTECS #:</td>
<td>Data not available</td>
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</tbody>
</table>

**Section 12. Ecological Information**

<table>
<thead>
<tr>
<th>Description</th>
<th>Data Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecotoxicity:</td>
<td>Data not available</td>
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</tbody>
</table>

**Section 13. Disposal Considerations**

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Section 14. Transport Information**

<table>
<thead>
<tr>
<th>Description</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN No.:</td>
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</tr>
<tr>
<td>Class:</td>
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<tr>
<td>PG:</td>
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<tr>
<td>Description:</td>
<td>-</td>
</tr>
</tbody>
</table>

**Section 15. Regulatory Information**

<table>
<thead>
<tr>
<th>Description</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRTR Law</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Industrial Safety and Health Law:</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Poisonous and Deleterious Substance Control Law:</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Fire Service Act:</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Law Concerning the Examination and Regulation of Manufacture, etc of Chemical Substances:</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Avitation Law:</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Ship Safety Law:</td>
<td>Not applicable</td>
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</tbody>
</table>

**Section 16. Other Information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide.

Dojindo Laboratories shall not be held liable for any damage resulting from handling or contact with the above material.

**MSDS Creation Date:** 2010/11/15  **Revision #:** 2011/10/04

Kazumi Sasamoto  
Managing Director