MATERIAL SAFETY DATA SHEET

1. Chemical Product and Company Identification
Product Name : Aluminium Lactate
Other Name : Aluminum Lactate.
            : Aluminum trilactate
            : Aluminum Tris-(2-Hydroxypropanoate)
Manufacturer : Musashino Chemical Laboratory, Ltd.
Address : YAESU-DAIBIRU Bldg.,1-1, 1-Chome,
          : Kyobashi, Chuo-Ku, Tokyo 104-0031
TEL : +813-3274-5502
FAX : +813-3275-2206

2. Hazards Identification
Hazard Classification : Not classified
Hazard Statement : Nothing

3. Composition/Information of Ingredients
It is single substance of Aluminium Lactate.
Ingredient and Content :
            : Single component

Formula
\[
\begin{align*}
\left( \frac{\text{CH}_3}{\text{HO—CH—COO}} \right)_3 \text{Al}
\end{align*}
\]

MITI No. : 2-1376
CAS No. : 18917-91-4
EINECS : 242-670-9

4. First Aid Measures
First Aid Measures under different exposure routes :
Inhalation :
            : Move the exposed person to fresh air at once. Get medical attention.
Skin Contact :
            : Wash the skin immediately with lukewarm water.
Eye Contact :
            : Continue to rinse for at least 15 minutes. Make sure to remove any contact lenses
              from the eyes before rinsing. Get medical attention if any discomfort continues.
Ingestion :
            : Immediately rinse mouth and drink plenty of water. Get medical attention immediately.
Most important symptoms and effects:
No information available.

Protection of first aider:
No information available.

Notes for the physician:
No information available.

5. **Fire Fighting Measures**

Suitable extinguishing media:
This product is not flammable. Use fire extinguishing media appropriate for surrounding materials. Dry chemicals. Foam.

Special hazards arising from the product:
No information available.

Special fire-fighting methods:
Fire-fighting in the wind. Remove from fire and move to empty place. Cool containers with water spray. Provide adequate ventilation. Prevent fire extinguishing water from contaminating surface water or the ground water system.

Protection for fire-fighters:
Fire-fighters should wear appropriate breathing apparatus and protective equipment.

6. **Accidental Release Measures**

Personal precautions:
Wear personal protective equipment (See section 8).

Environmental precautions:
It is biodegradable. And it is thought that fish toxicity is low.

Methods cleaning up:
Collect immediately to prevent it from scattering. Flush area with water. Handle waste appropriately.

7. **Handling and Storage**

Handling:
Avoid spilling, skin and eye contact. Wear appropriate clothing to prevent any possibility of skin contact.

Storage:
Store in tightly closed original container. Protect from light, including direct sunrays. Store below room temperature.
8. **Exposure Controls/Personal Protection**

Engineering control:

Provide local exhaust or process enclosure ventilation system.

Personal protective equipment:

- Respiratory protection: In case of inadequate ventilation wear respiratory protection.
- Hand protection: Wear protective gloves.
- Eye protection: Wear approved safety goggles.
- Skin and body protection: Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

9. **Physical and Chemical Properties**

Appearance: Powder.
Color: White
Odor: Odorless or slightly characteristic odor
pH(1→11): 3.0～4.0
Flash Point: Not available
Flammability: Not flammable
Solubility: Soluble in Water

10. **Stability and Reactivity**

Stability: Stable under normal conditions of handling, storage use.
Reactivity: Not available.

Hazardous decomposition products: Not available.

11. **Toxicological Information**

Acute Toxicity: After dosage of 100, 200, 300mg of aluminium lactate to pregnant rat, weight decrease and death rate of rat pup are seen. Embryo toxicity and neurotoxicity are reported.

Local Effect: No data

Toxic dose: TDL₀ 6,270mg/kg (Mouse, preg 6-15D oral)
Embryo and/or fetal toxicity
12. Ecological Information
Persistence/degradability : Good.

13. Disposal Consideration
Waste Disposal methods : Incinerate in suitable combustion chamber. Dispose of waste and residues in accordance with local authority requirements.

14. Transport Information
UN Number : Not regulated
UN Proper shipping name : Not regulated
UN Classification : Not regulated
Packing Group : Not regulated
Mark/Label(s) : Not regulated
Marine pollutant (Yes/No) : No
Additional information :
The materials transportation by vehicles, the sender serves deliverers with instructions for safe handling. In transportation confirm leakless of the container, and load the materials not to upset, fall and damage. Secure preventing the load from falling.

15. Regulatory Information
Applicable regulations :

16. Other Information
References :
Bernuzzi,V.; Desor,D.; Lehr,P.R.
2) "The Handbook of Prevention for Dangerous Substances Accident and Emergencies"
KOBEKAINAN BOSHIKENKYUKAI published by SEIZANDO (Japanese)
3) The Merck Index 12th Ed. (1986)
4) Research Communications in Chemical Pathology and Pharmacology. (1992) 77(1), 95-106
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