SAFETY DATA SHEET

1. Chemical Product and Company Identification

Product Name : Calcium Stearoyl Lactylate

Other Name : Octadecanoic acid, 2-(1-carboxyethoxy)-1-methyl-2-oxoethyl

ester, calcium salt

Manufacturer : Musashino Chemical Laboratory, Ltd.
Address : Tekko Bldg., 8-2, Marunouchi 1-Chome,

Chiyoda-Ku, Tokyo 100-0005

TEL : +81-3-6810-0242 FAX : +81-3-6810-0148

2. Hazards Identification

Hazard Classification : Not classified Hazard Statement : Nothing

3. Composition/Information of Ingredients

It is calcium salt of stearic acid ester of lactic acid or its condensate.

Ingredient and Content: No data

Formula

$$\left\{ CH_{3} - \left(CH_{2} \right)_{16} \stackrel{\mid }{C} - O + \left(CH_{3} \quad O \atop \mid CH - C - O \right)_{n} \right\}_{2} Ca$$

MITI No. : 7-2115

CAS No. : 5793-94-2 4508-49-0

EINECS : 227-335-7 TSCA : On Inventory

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 with soap and water. Get medical attention if irritation persists after washing.

Eve 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:

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:

After cooling and solidifying, recover spoilage. If it is adhered, tear it off and recover, in addition, scrape off attaching part and wipe off with solvent.

7. Handling and Storage

Handling:

Avoid spilling, skin and eye contact. Wear appropriate clothing to prevent any possibility of skin contact. In particular, be careful about burns by the adhesion of molten state of it to skin

Storage:

Store in tightly closed original container. Protect from light, including direct sunrays. Store in normal temperature condition.

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 : Solid.

Color : Colorless or slightly yellow

Odor : Odorless or slightly characteristic odor

pH : Not available Melting Point : $45\sim60^{\circ}$ C

Flash Point : 222°C (Cleveland open-cup tester)

Heat of combustion: 30,700 J/g

Specific Gravity : about 1.0 (Molten state)
Solubility : Miscible with alcohol

Slightly soluble in water

10. Stability and Reactivity

Stability : Gradually hydrolyzed by absorbing moisture.

Reactivity : Hydrolyzed in water and fatty acid is formed and isolated.

Hazardous decomposition products: Not available.

11. Toxicological Information

Acute Toxicity: LD₅₀ 10,985mg/kg (Mouse)

25,000mg/kg (Rat, Oral)

Local Effect : No data

Mutagenicity : Ames test : Negative

Irritation : No (Rabbit, eye)

Skin corrosion : No data

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

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:

1. Food Sanitation Act : Food additives

16. Other Information

References:

1) "The Handbook of Prevention for Dangerous Substances Accident and Emergencies"

KOBEKAINAN BOSHIKENKYUKAI published by SEIZANDO (Japanese)

2) Unpublished data (for Company use: Japanese)

Disclaimer :

The information in this SDS is provided all the relevant data fully and truly. However, the information is provided without any warranty on their absolute extensiveness and accuracy. This SDS was prepared to provide safety preventive measures for the users who have got professional training. The personal user who obtained this SDS should make independent judgment for the applicability of this SDS under special conditions. In these special cases, we do not assume responsibility for the damage.