

## Material Safety Data Sheet

### Section 1 – Product and Company Identification

|   |   |
|---|---|
| <b>Product Name</b>                       | DL-Calcium lactate  |
| <b>Chemical Name</b>                      | DL-Calcium lactate  |
| <b>Chemical Formula</b>                   | $C_6H_{10}CaO_6 \cdot nH_2O$ (n= 0-5)   |
| <b>Company Identification</b>             | Showa Kako Corporation<br>18-23, Yoshino-cho, Suita-city, Osaka 564-0054<br>JAPAN |
| <b>Telephone Number</b>                   | +81-6-6384-1501   |
| <b>24-hour Emergency Telephone Number</b> | +81-6-6384-1501   |
| <b>Fax Number</b>                         | +81-6-6384-2287   |

### Section 2 – Hazards Information

|                           |  |
|---------------------------|--|
| <b>Inhalation</b>         | Not harmful if handled properly  |
| <b>Skin</b>               | May produce skin irritation  |
| <b>Eyes</b>               | May cause eye irritation   |
| <b>Ingestion</b>          | Not expected to present a significant ingestion hazards under anticipated condition of normal use. |
| <b>GHS Classification</b> | Not classified   |
| <b>GHS Symbol</b>         | Not classified   |
| <b>Signal Word</b>        | Not classified   |

### Section 3 – Composition and Information on Ingredients

|                          |                          |
|--------------------------|--------------------------|
| <b>Substance/Mixture</b> | Substance                |
| <b>Chemical Name</b>     | DL-Calcium lactate       |
| <b>CAS #</b>             | 814-80-2                 |
| <b>Percent</b>           | 97.0% min.(as anhydrous) |

### Section 4 – First Aid Measures

|                  |   |
|------------------|---|
| <b>Eyes</b>      | Immediately flush eyes with copious amounts of water for at least 15 minutes, occasionally lifting the upper and lower eyelids.<br>Consult with ophthalmologist.                |
| <b>Skin</b>      | Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Consult with a physician if symptoms occur. |
| <b>Ingestion</b> | Immediately wash mouth with plenty of water and give 1 - 2  |

|                   |   |
|-------------------|---|
|                   | cupfuls of milk or water if victim is conscious and alert. Consult with a physician. Never give anything by mouth to an unconscious person.   |
| <b>Inhalation</b> | Remove to fresh air, wash out nasal aperture and mouth with plenty of water. If breathing is difficult, give artificial respiration. If not breathing, give oxygen. Consult with a physician. |

### Section 5 – Fire Fighting Measures

|                                  |  |               |
|----------------------------------|--|---------------|
| <b>Flash Point</b>               | No data found  |               |
| <b>Autoignition</b>              | No data found  |               |
| <b>Explosion Limits</b>          | <b>Lower</b>   | No data found |
|                                  | <b>Upper</b>   | No data found |
| <b>Extinguish Media</b>          | Water, powder, carbon dioxide, foam  |               |
| <b>Firefighting Instructions</b> | Avoid non-firefighting equipped personnel to enter. Extinguish upwind from the fire wearing appropriate protective gear. |               |

### Section 6 – Accidental Release Measures

|                      |   |
|----------------------|---|
| <b>Spills/ Leaks</b> | Evacuate area. Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves. Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Do not contact with skin. Do not inhale. Wash spill site after material pickup is complete. |
|----------------------|---|

### Section 7 – Handling and Storage

|                 |   |
|-----------------|---|
| <b>Handling</b> | Wear appropriate protective gear. Do not contact with eyes, skin and on clothing. Do not inhale. Handle with care. Provide adequate ventilation. Wash mouth and hand after handling the material. |
| <b>Storage</b>  | Keep container tightly closed. Avoid such conditions as direct sunlight, high temperature, high humidity and high piling. Store in low-humid and dry area.  |

### Section 8 – Exposure Controls, Personal Protection

|                                      |  |
|--------------------------------------|--|
| <b>Engineering Controls</b>          | Facilities storing or utilizing the material should be equipped with an eye wash facilities and a safety shower. Use adequate ventilation to keep airborne concentrations low. |
| <b>Exposure Limits</b>               | No data found  |
| <b>Personal Protective Equipment</b> |  |
| <b>Eyes</b>                          | Safety goggles   |
| <b>Skin</b>                          | Rubber gloves  |

|                    |                                      |
|--------------------|--------------------------------------|
| <b>Clothing</b>    | Protective clothing and rubber boots |
| <b>Respirators</b> | Anti-dust mask                       |

### Section 9 – Physical and Chemical Properties

|                       |                                   |
|-----------------------|-----------------------------------|
| <b>Physical State</b> | Powder or granules                |
| <b>Appearance</b>     | White                             |
| <b>Odor</b>           | Odorless or slightly unusual odor |
| <b>Boiling Point</b>  | No data found                     |
| <b>Melting Point</b>  | No data found                     |
| <b>Density</b>        | No data found                     |
| <b>Viscosity</b>      | No data found                     |
| <b>pH</b>             | No data found                     |
| <b>Flash Point</b>    | No data found                     |
| <b>Autoignition</b>   | No data found                     |
| <b>Explosibility</b>  | No data found                     |
| <b>Vapor Pressure</b> | No data found                     |
| <b>Vapor Density</b>  | No data found                     |
| <b>Solubility</b>     | Soluble in water                  |

### Section 10 – Stability and Reactivity

|  |  |
|--|--|
| <b>Stability</b>                             | Stable   |
| <b>Conditions to avoid</b>                   | Direct sunlight, high temperature, high humidity and high piling |
| <b>Incompatibilities with Other Material</b> | No data found  |
| <b>Hazardous Decomposition Product</b>       | May produce carbon monoxide or carbon dioxide                    |
| <b>Hazardous Polymerization</b>              | Will not occur   |

### Section 11 – Toxicological information

|                             |  |
|-----------------------------|--|
| <b>RTECS #</b>              | No data found                                    |
| <b>LD50/ LC50</b>           | IV-mouse LD50 140 mg/kg                          |
| <b>Carcinogenicity</b>      | No data found                                    |
| <b>Mutagenicity</b>         | No data found                                    |
| <b>Reproductive Effects</b> | No data found                                    |
| <b>Teratogenicity</b>       | No data found                                    |
| <b>Immunology</b>           | No data found                                    |
| <b>Irritation</b>           | May cause irritation to skin and mucous membrane |

### Section 12 – Ecological Information

|                               |               |
|-------------------------------|---------------|
| <b>Ecotoxicity</b>            | No data found |
| <b>Environmental Standard</b> | No data found |

### Section 13 – Disposal Consideration

|                          |  |
|--------------------------|--|
| <b>Disposal Method</b>   | Federal (national), state or local laws and regulations will determine the proper waste disposal method. |
| <b>Regulation Method</b> | Federal (national), state or local laws and regulations  |

### Section 14 – Transport Information

|                      |                |
|----------------------|----------------|
| <b>Shipping Name</b> | Not applicable |
| <b>Hazard Class</b>  | Not applicable |
| <b>UN #</b>          | Not applicable |
| <b>Packing Group</b> | Not applicable |

### Section 15 – Regulatory Information

|                      |                 |                 |
|----------------------|-----------------|-----------------|
| <b>United States</b> | <b>TSCA</b>     | Not on the list |
| <b>EC</b>            | <b>EINECS</b>   | Not on the list |
| <b>Canada</b>        | <b>WHMIS</b>    | No data found   |
| <b>Japan</b>         | <b>PRTR law</b> | Not on the list |

### Section 16 – Other Information

|                           |                  |
|---------------------------|------------------|
| <b>MSDS Creation Date</b> | January 26, 2012 |
| <b>Revised Date</b>       | April 12, 2013   |
| <b>Revised No.</b>        | Revised 2nd      |

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