★★★ MATERIAL SAFETY DATA SHEET ★★★

Calcium Gluconate Monohydrate

* SECTION 1 《 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION 》

Product Name: J.S.F.A Calcium Gluconate Synonyms: D-Gluconic acid, calcium salt (2:1)

Company Identification:

Tomita Pharmaceutical Co., Ltd.

Manufacturer of chemicals & pharmaceuticals

Akinokami, Setocho, Naruto-City, Tokushima 771-0360, Japan.

Telephone: +81 (88) 688-0511 Telefax: +81 (88) 688-0565

* SECTION 2 《 COMPOSITION / INFORMATION ON INGREDIENTS 》

CAS No.	Chemical Name	%	
299-28-5	Calcium Gluconate	100	

* SECTION 3 《 HAZARDS IDENTIFICATION 》

Emergency Overview

Appearance: White powder or granules.

CAUTION:

MAY CAUSE RESPIRATORY TRACT IRRITATION. MAY CAUSE EYE AND SKIN

IRRITATION.

Target Organs: No information found.

Potential Health Effects

Eye: May cause eye irritation.

Skin: May cause skin irritation.

Ingestion:

Causes gastrointestinal irritation with nausea, vomiting and diarrhea.

Inhalation:

May cause respiratory tract irritation.

Chronic: No information found.

* SECTION 4 《 FIRST AID MEASURES 》

Eyes:

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid.

Skin:

Get medical aid if irritation develops or persists. Rinse area with large amounts of water for at least 15 minutes. Remove contaminated clothing and shoes.

Ingestion:

If victim is conscious and alert, give 2-4 cupfuls of milk or water.

Get medical aid.

Inhalation:

Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

* SECTION 5 《 FIRE FIGHTING MEASURES 》

General Information:

Substance is combustible.

Extinguishing Media:

Use extinguishing media most appropriate for the surrounding fire.

Auto ignition Temperature:

Not available.

NFPA Rating:

Not published.

Explosion Limits,

Lower: Not available. Upper: Not available.

* SECTION 6 《 ACCIDENTAL RELEASE MEASURES 》

General Information: Use proper personal protective equipment as indicated in Section 8. Spills/Leaks: Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions.

* SECTION 7 《 HANDLING and STORAGE 》

Handling: Wash thoroughly after handling. Minimize dust generation and accumulation. Avoid contact with skin and eyes. Avoid ingestion and inhalation. Use with adequate ventilation. Storage: Store in ambient temperature.

* SECTION 8 《 EXPOSURE CONTROLS, PERSONAL PROTECTION 》

Engineering Controls:

Good general ventilation should be sufficient to control airborne levels.

Exposure Limits

Chemical Name	ACGIH (TLV)	OSHA (PEL)
Calcium Gluconate	10mg/m³ total dust	15mg/m³ total dust

Personal Protective Equipment

Eyes: Wear chemical goggles.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29CFR 1010.134. Always use a

NIOSH-approved respirator when necessary.

* SECTION 9 《 PHYSICAL AND CHEMICAL PROPERTIES 》

Physical State	Solid
Appearance	White powder or granules
Odor	Odorless
РН	Not available.
Vapor Pressure	Not available.
Vapor Density	Not available.
Evaporation Rate	Not available.
Viscosity	Not available.
Boiling Point	Not available.
Freezing/Melting Point	Not available.
Decomposition Temperature	Not available.
Solubility	3g in 100g of water.
Specific Gravity/Density	Not available
Molecular Formula	$C_{12}H_{22}CaO_{14}$. H_2O
Molecular Weight	448.39

* SECTION 10 《 STABILITY AND REACTIVITY 》

Chemical Stability:

Stable under recommended storage and handling conditions.

Recommended condition:

Keep container tightly closed and dry. Keep in a cool place.

Hazardous Decomposition Products:

Carbon dioxide and carbon monoxide may form when heated to decomposition.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

Strong oxidizing agents.

Conditions to Avoid:

Heat, flames, ignition, sources and incompatibles.

* SECTION 11 《 TOXICOLOGICAL INFORMATION 》

Name:

Calcium Gluconate

LD50:

ivn-rat: 950mg/kg

NIIRDN 6,226,82

Carcinogenicity:

No information found.

Epidemiology:

No information found.

Teratogenicity:

No information found.

Reproductive Effects:

No information found.

Neurotoxicity:

No information found.

Mutagenicity:

No information found.

* SECTION 12 《 ECOLOGICAL INFORMATION 》

Eco toxicity:

Not available.

Environmental Fate:

Not available.

Physical/Chemical:

Not available.

* SECTION 13 《 DISPOSAL CONSIDERATION 》

Dispose of in a manner consistent with federal, state, and local regulations.

* SECTION 14 《 TRANSPORT INFORMATION 》

No information available

* SECTION 15 《 REGULATORY INFORMATION 》

A. Federal

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

B. State

None of the chemicals in this product are listed.

* SECTION 16 《 ADDITIONAL INFORMATION 》

MSDS Creation Date: 07/10/2009

To the best of our knowledge, the information contained herein is accurate. However, we cannot assume any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user.

All materials may present unknown hazards and should be used with caution.

Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.