Valudor Products

SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

Product Name	Sodium Gluconate
Supplier	Valudor Products, LLC
	179 Calle Magdalena Suite 100 Encinitas, CA 92024
Telephone	(760) 635 8500
Emergency Telephone	800-535-5053 (Infotrac)

2. HAZARD IDENTIFICATION

This product is not considered hazardous under the U.S. OSHA 29 CFR 1910.1200 Hazard Communication Standard.

No label element(s) required

3. COMPOSITION / INFORMATION ON INGREDIENTS

Product Name	Sodium Gluconate
CAS Number	222321

4. FIRST AID MEASURES

Swallowing

Although ingestion is not thought to produce harmful effects, the material may still be damaging to the health of the individual following ingestion, especially where pre-existing organ (e.g. liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality (death) rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to because for concern.

- Immediately give a glass of water.

- First aid is not generally required. If in doubt, contact a Poisons Information Center or a doctor.

Skin	The material is not thought to produce adverse health effects or skin irritation following contact (as classified using animal models).Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting. • Flush skin and hair with running water (and soap if available). • Seek medical attention in event of irritation.
Eyes	Although the material is not thought to be an irritant, direct contact with the eye may cause transient discomfort characterized by tearing or conjunctival redness (as with windburn). Slight abrasive damage may also result. The material may produce foreign body irritation in certain individuals. • Wash out immediately with water. • If irritation continues, seek medical attention. • Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Inhalation	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified using animal models).Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled. Not normally a hazard due to non-volatile nature of product. • If fumes or combustion products are inhaled remove from contaminated area. • Other measures are usually unnecessary.

5. FIRE-FIGHTING MEASURES

Vapor Pressure (mmHG):	Not applicable
Upper Explosive Limit (%):	Not available.
Specific Gravity (water=1):	0.8-1.0 bulk
Lower Explosive Limit (%):	Not available.
Extinguishing Media	• Water spray or fog. • Foam. • Dry chemical powder. • BCF (where regulations permit). • Carbon dioxide.

Fire Fighting	• Alert Emergency Responders and tell them location and nature of hazard. • Wear breathing apparatus plus protective gloves. • Prevent, by any means available, spillage from entering drains or water course. • Use water delivered as a fine spray to control fire and cool adjacent area. • DO NOT approach containers suspected to be hot. • Cool fire exposed containers with water spray from a protected location. • If safe to do so, remove containers from path of fire. • Equipment should be thoroughly decontaminated after use.
General fire Hazards/Hazardous Combustible Products	• Combustible solid which burns but propagates flame with difficulty. • Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion. Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust may burn rapidly and fiercely if ignited. • Dry dust can be charged electrostatically by turbulence, pneumatic transport, pouring, in exhaust ducts and during transport. • Build-up of electrostatic charge may be prevented by bonding and grounding. • Powder handling equipment such as dust collectors, dryers and mills may require additional protection measures such as explosion venting. Combustion products include: carbon monoxide (CO), carbon dioxide (CO2), other pyrolysis products typical of burning organic material.
Fire Incompatibility	Avoid contamination with oxidizing agents i.e. nitrates, oxidizing acids, chlorine bleaches, pool chlorine etc. as ignition may result

6. ACCIDENTAL RELEASE MEASURES

Minor Spills	Clean up all spills immediately. Avoid contact with skin and eyes. Wear impervious gloves and safety glasses. Use dry clean up procedures and avoid generating dust. Sweep up or vacuum up (consider explosion-proof machines designed to be grounded during storage and use). Place spilled material in clean, dry, sealable, labeled container.

Major Spills	Clear area of personnel and move upwind. Alert Emergency Responders and tell them location and nature of hazard. Control personal contact by using protective equipment and dust respirator. Prevent spillage from entering drains, sewers or water courses. Avoid generating dust. Sweep, shovel up. Recover product wherever possible. Put residues in labeled plastic bags or other containers for disposal. If contamination of drains or waterways occurs, advise emergency services.

7. HANDLING AND STORAGE

- Lined metal can, Lined metal pail/drum
- Plastic pail
- Polyliner drum
- Packing as recommended by manufacturer.
- Check all containers are clearly labeled and free from leaks.
- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storing and handling recommendations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal Protective Equipment

Hands/Feet

Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: such as:

- frequency and duration of contact,
- chemical resistance of glove material,
- glove thickness and
- dexterity

Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739).

- When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than
- 240 minutes according to EN 374) is recommended.
- When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended.
- Contaminated gloves should be replaced.

Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of

a non-perfumed moisturizer is recommended.
Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present.

- polychloroprene
- nitrile rubber
- butyl rubber
- fluorocaoutchouc
- polyvinyl chloride

Gloves should be examined for wear and/ or degradation constantly.

Eye Protection:

- Safety glasses with side shields
- Chemical goggles.
- Contact lenses pose a special hazard; soft lenses may absorb irritants and all lenses concentrate them.

Engineering Controls

- Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively large, a certain proportion will be powered by mutual friction.
- Exhaust ventilation should be designed to prevent accumulation and recirculation of particulates in the workplace.
- If in spite of local exhaust an adverse concentration of the substance in air could occur, respiratory protection should be considered. Such protection might consist of:

(a): particle dust respirators, if necessary, combined with an absorption cartridge;
(b): filter respirators with absorption cartridge or canister of the right type;
(c): fresh-air hoods or masks

- Build-up of electrostatic charge on the dust particle, may be prevented by bonding and grounding.
- Powder handling equipment such as dust collectors, dryers and mills may require additional protection measures such as explosion venting.

Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to efficiently remove the contaminant.

9. PHYSICAL PROPERTIES

Appearance

Solid.
Mixes with water. White to yellowish almost odorless crystals with a slightly sweet odor; mixes with water, soluble 59 g/100 g. Sparingly soluble in alcohol and insoluble in ether. FAO/ WHO Acceptable Daily Intake 50 mg/kg

10. STABILITY AND REACTIVITY

Conditions Contributing To Instability	Product is considered stable and hazardous polymerization will not occur.
Storage Incompatibility	Avoid contamination of water, foodstuffs, feed or seed. Avoid reaction with oxidizing agents. For incompatible materials - refer to Section 7 - Handling and Storage.

11. TOXICOLOGICAL INFORMATION

Toxicity And Irritation	Unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances Intravenous (Rabbit) LD: 7630 mg/kg Oral (Rat) LD50: >2000 mg/kg * PMP MSDS

12. ECOLOGICAL INFORMATION

Refer to data for ingredients, which follows:
SODIUM GLUCONATE:
Ecotoxicity:
Fish LC50 996 h): >1000 mg/l
Fish Chronic value (ChV) >100 mg/l
Daphnia LC50 (48 h): >1000 mg/l
Daphnia Chronic value ChV >100 mg/l
Algae Chronic valye ChV >100 mg/l
No bioconcentration in aquatic organisms and rapid biodegradation/ disappearance in the environment: 40% in 5 days

13. DISPOSAL CONSIDERATIONS

All waste must be handled in accordance with local, state and federal regulations.
Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.
A Hierarchy of Controls seems to be common - the user should investigate:

- Reduction
- Reuse
- Recycling
- Disposal (if all else fails)

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.
DO NOT allow wash water from cleaning equipment to enter drains. Collect all wash water for treatment before disposal.

- Recycle wherever possible.
- Consult manufacturer for recycling options or consult Waste Management Authority for disposal if no suitable treatment or disposal facility can be identified.
- Dispose of by burial in a licensed land-fill or Incineration in a licensed apparatus (after admixture with suitable combustible material)
- Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

14. TRANSPORT INFORMATION

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: DOT, IATA, IMDG

15. REGULATORY INFORMATION

Sodium gluconate (CAS: 527-07-1) is found on the following regulatory lists;
"Canada Domestic Substances List (DSL)","CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP", "International Council of Chemical Associations (ICCA) - High Production Volume List", "OECD Representative List of High Production Volume (HPV) Chemicals", "US DOE Temporary Emergency Exposure Limits (TEELs)","US EPA High Production Volume Program Chemical List", "US FDA Direct Food Substances Generally Recognized as Safe", "US Food Additive Database", "US Toxic Substances Control Act (TSCA) - Inventory"

16. OTHER INFORMATION

All information in this SDS was obtained from sources we believe are reliable. However, the information is provided without any warranty or representation, expressed or implied, regarding its accuracy.
The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.