1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Product identifier:

Product name: SODIUM GLUCONATE

Synonyms; trade names: SODIUM GLUCONATE MIN 99%, SOD GLUCONATE E576 PDR, SOD GLUCONATE FG PDR, SOD GLUCONATE FG GRAN

REACH registration notes: This product is not classified as hazardous, the information in this datasheet is given for guidance only.

CAS number: 527-07-1

EC number: 208-407-7

Relevant identified uses of the substance or mixture and uses advised against:

Identified uses: Food / Feed additive Pharmaceuticals Chelating Agent Industrial application Cosmetics

Company name:

Nexchem Ltd
Unit 3 Barshaw Park
Leycroft Road
Leicester
LE4 1ET
Tel: 0116 2311130
24/7 Emergency Tel: 0800 246 1274
Email: sales@nexchem.co.uk

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture:

Classification (EC 1272/2008):

Physical hazards: Not Classified

Health hazards: Not Classified

Environmental hazards: Not Classified

Environmental: The product is not expected to be hazardous to the environment.

Label elements:

EC number: 208-407-7

Hazard statements: NC Not Classified

Other hazards: This substance is not classified as PBT or vPvB according to current EU criteria.

[cont…]

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substances:

Product name: SODIUM GLUCONATE

REACH registration notes: This product is not classified as hazardous, the information in this datasheet is given for guidance only.

CAS number: 527-07-1

EC number: 208-407-7

Composition comments: The data shown are in accordance with the latest EC Directives.

4. FIRST AID MEASURES

Description of first aid measures:

General information: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Inhalation: Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Rinse nose and mouth with water. Get medical attention if any discomfort continues.

Ingestion: Rinse mouth thoroughly with water. Do not induce vomiting. Give plenty of water to drink. Get medical attention if any discomfort continues.

Skin contact: Remove affected person from source of contamination. After contact with skin, take off immediately all contaminated clothing and wash immediately with plenty of water. Get medical attention promptly if symptoms occur after washing.

Eye contact: Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.

Most important symptoms and effects, both acute and delayed:

Eye contact: Solid particles trapped behind the eyelid may cause abrasive damage.

Indication of any immediate medical attention and special treatment needed:

Notes for the doctor: Treat symptomatically. If in doubt, get medical attention promptly.

5. FIRE-FIGHTING MEASURES

Extinguishing media:

Suitable extinguishing media: Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture:

Specific hazards: When heated and in case of fire, toxic vapours/gases may be formed. Do not use water jet as an extinguisher, as this will spread the fire. Hazardous decomposition products will be formed at elevated temperatures.

Hazardous combustion products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of the following substances: Carbon.

[cont…]

Protective actions during firefighting: Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Contain and collect extinguishing water. Avoid breathing fire gases or vapours.

Advice for firefighters:

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Personal precautions: Provide adequate ventilation. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Avoid inhalation of dust and contact with skin and eyes. Avoid generation and spreading of dust.

Environmental precautions: Do not discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

Methods and material for containment and cleaning up:

Methods for cleaning up: Avoid generation and spreading of dust. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Flush contaminated area with plenty of water. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

Reference to other sections: Wear protective clothing as described in Section 8 of this safety data sheet. For waste disposal, see Section 13.

7. HANDLING AND STORAGE

Precautions for safe handling:

Usage precautions: Provide adequate ventilation. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Avoid inhalation of dust and contact with skin and eyes. Avoid handling which leads to dust formation.

Advice on general occupational hygiene: Good personal hygiene procedures should be implemented. Observe good chemical hygiene practices. Avoid breathing dust. Avoid contact with skin, eyes and clothing.

Conditions for safe storage, including any incompatibilities:

Storage precautions: Store in tightly-closed, original container in a dry, cool and well-ventilated place. Earth container and transfer equipment to eliminate sparks from static electricity. Keep away from heat, sparks and open flame.

Specific end use(s): The identified uses for this product are detailed in Section 1.2.

[cont…]

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Ingredient comments: No exposure limits known for ingredient(s).

Exposure controls:

Protective equipment:



Appropriate engineering controls: Provide adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimise worker exposure.

Eye/face protection: Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Tight-fitting safety glasses. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection: The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. The selected gloves should have a breakthrough time of at least 8 hours. Rubber or plastic. To protect hands from chemicals, gloves should comply with European Standard EN374.

Other skin and body protection: Wear suitable protective clothing as protection against splashing or contamination.

Hygiene measures: When using do not eat, drink or smoke. Wash at the end of each work shift and before eating, smoking and using the toilet. Remove contaminated clothing and protective equipment before entering eating areas. Eye wash facilities and emergency shower must be available when handling this product.

Respiratory protection: Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m3. If ventilation is inadequate, suitable respiratory protection must be worn. Particulate filter, type P2. EN 136/140/141/145/143/149.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Appearance: Dusty powder. Granules. Crystalline Powder.

Colour: White/off-white.

Odour: Almost odourless.

Odour threshold: No information available.

pH: pH (diluted solution): 6.5 – 7.5 @ 10%

Melting point: 170 - 207°C

[cont…]

Initial boiling point and range: No information available.
Flash point: No information available.
Evaporation rate: No information available.
Evaporation factor: No information available.
Flammability (solid, gas): No information available.
Upper/lower flammability or explosive limits: No information available.
Other flammability: No information available.
Vapour pressure: No information available.
Vapour density: No information available.
Relative density: No information available.
Bulk density: 600 - 1000 kg/m³
Solubility(ies): -590 g/l water @ 25°C
Partition coefficient: log Pow: -5.99
Auto-ignition temperature: >550°C
Decomposition Temperature: 170 - 220°C
Viscosity: No information available.
Explosive properties: Dust may form explosive mixture with air.
Explosive under the influence of a flame: No information available.
Oxidising properties: No information available.

Other information: Not determined.
Refractive index: No information available.
Particle size: No information available.
Molecular weight: 218.14
Volatility: No information available.
Saturation concentration: No information available.
Critical temperature: No information available.
Volatile organic compound: No information available.

10. STABILITY AND REACTIVITY

Reactivity: There are no known reactivity hazards associated with this product.

Chemical stability:
Stability: Stable at normal ambient temperatures.

Possibility of hazardous reactions: Not determined.

Conditions to avoid: Avoid excessive heat for prolonged periods of time. Moisture.

Incompatible materials:
Materials to avoid: Oxidising agents.

Hazardous decomposition products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of the following substances: Carbon.

[cont…]

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects:

Acute toxicity – oral:

Notes (oral LD_{50}): LD_{50} 6060 mg/kg, Oral, Rat OECD 401

Acute toxicity – dermal:

Notes (dermal LD_{50}): LD_{50} > 2000 mg/kg, Dermal, Rat OECD 402

Acute toxicity – inhalation:

Notes (inhalation LC_{50}): No information available.

Skin corrosion/irritation:

Animal data: Rabbit OECD 404 Not irritating.

Serious eye damage/irritation:

Serious eye damage/irritation: Rabbit OECD 405 Not irritating.

Respiratory sensitisation:

Respiratory sensitisation: No information available.

Skin sensitisation:

Skin sensitisation: Mouse OECD 429 Not sensitising.

Germ cell mutagenicity:

Genotoxicity - in vitro: Negative.

Carcinogenicity: There is no evidence that the product can cause cancer.

Reproductive toxicity – fertility: Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure:

STOT - single exposure: No information available.

Specific target organ toxicity - repeated exposure:

STOT - repeated exposure: No information available.

Aspiration hazard: No information available.

Inhalation: Dust in high concentrations may irritate the respiratory system.

Ingestion: No harmful effects expected from quantities likely to be ingested by accident.

Skin contact: Skin irritation should not occur when used as recommended.

Eye contact: Particles in the eyes may cause irritation and smarting.

[cont…]

12. ECOLOGICAL INFORMATION

Ecotoxicity: The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

Toxicity: Not considered toxic to fish.

Acute aquatic toxicity:

Acute toxicity – fish: NOEC, 96 hours: =100 mg/l, Oryzias latipes (Red killifish)
OECD 203
LC_{50}, 96 hours: > 100 mg/l, Oryzias latipes (Red killifish)
OECD 203
LC_{50}, 48 hours: 360 mg/l, Fish
OECD 203

Acute toxicity – aquatic invertebrates: EC_{50}, 48 hours: > 1000 mg/l, Daphnia magna
OECD 202

Acute toxicity - aquatic plants: EC_{0}, 72 hours: <=100 mg/l, Desmodesmus subspicatus
OECD 201

Acute toxicity – microorganisms: NOEC, 3 hours: 100 mg/l, Activated sludge
OECD 209
EC_{50}, 3 hours: 649.8 mg/l, Activated sludge
OECD 209

Persistence and degradability: The product is readily biodegradable.

Biodegradation: Degradation 89%: 28 days

Biological oxygen demand: 507 mg O_2/l

Chemical oxygen demand: 807 mg O_2/l

Bioaccumulative potential: No data available on bioaccumulation.

Partition coefficient: log Pow: -5.99

Mobility in soil:

Mobility: The product is soluble in water.

Results of PBT and vPvB assessment: This substance is not classified as PBT or vPvB according to current EU criteria.

Other adverse effects: Not determined.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

General information: Waste should be treated as controlled waste. Do not puncture or incinerate, even when empty.

Disposal methods: Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

[cont…]

14. TRANSPORT INFORMATION

General: The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

UN number: No information required.

UN proper shipping name: No information required.

Transport hazard class(es): No information required.

Packing group: No information required.

Environmental hazards:
Environmentally hazardous substance/marine pollutant: No.

Special precautions for user: No information required.

Transport in bulk according to Annex II of MARPOL and the IBC Code:
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: No information required.

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture:

EU legislation: Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).
Commission Regulation (EU) No 2015/830 of 28 May 2015.

Chemical safety assessment: No chemical safety assessment has been carried out.

Inventories:

EU - EINECS/ELINCS: All the ingredients are listed or exempt.
Canada - DSL/NDSL: All the ingredients are listed or exempt.
DSL
US – TSCA: All the ingredients are listed or exempt.
Australia – AICS: All the ingredients are listed or exempt.
Korea – KECI: All the ingredients are listed or exempt.
China – IECSC: All the ingredients are listed or exempt.
Philippines – PICCS: All the ingredients are listed or exempt.
New Zealand – NZIOC: All the ingredients are listed or exempt.

[cont…]

Note: The regulatory information given above only indicates the principal regulations specifically Applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

Abbreviations and acronyms used in the safety data sheet:

ATE: Acute Toxicity Estimate.
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
CAS: Chemical Abstracts Service.
DNEL: Derived No Effect Level.
IATA: International Air Transport Association.
IMDG: International Maritime Dangerous Goods.
Kow: Octanol-water partition coefficient.
LC_{50}: Lethal Concentration to 50 % of a test population.
LD_{50}: Lethal Dose to 50% of a test population (Median Lethal Dose).
PBT: Persistent, Bioaccumulative and Toxic substance.
PNEC: Predicted No Effect Concentration.
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.
RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
vPvB: Very Persistent and Very Bioaccumulative.
IARC: International Agency for Research on Cancer.
MARPOL 73/78: International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978.
cATpE: Converted Acute Toxicity Point Estimate.
BCF: Bioconcentration Factor.
BOD: Biochemical Oxygen Demand.
EC_{50}: 50% of maximal Effective Concentration.
LOAEC: Lowest Observed Adverse Effect Concentration.
LOAEL: Lowest Observed Adverse Effect Level.
NOAEC: No Observed Adverse Effect Concentration.
NOAEL: No Observed Adverse Effect Level.
NOEC: No Observed Effect Concentration.
LOEC: Lowest Observed Effect Concentration.
DMEL: Derived Minimal Effect Level.
EL50: Exposure Limit 50
hPa: Hectopascal
LL50: Lethal loading fifty
OECD: Organisation for Economic Co-operation and Development

[cont…]

POW: Octanol-water partition coefficient
SCBA: self-contained breathing apparatus
STP: Sewage Treatment Plant
VOC: Volatile Organic Compounds

Classification abbreviations and acronyms:

Acute Tox. = Acute toxicity
Aquatic Acute = Hazardous to the aquatic environment (acute)
Aquatic Chronic = Hazardous to the aquatic environment (chronic)

Legal disclaimer: The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.