

**SECTION 1: Identification of the substance/mixture and of the company/undertaking.****1.1. Product identifier**

Product name:	Strontium Carbonate
EC No:	216-643-7
CAS No:	1633-05-2
REACH Registration No:	01-2119502545-46-XXXX
Synonyms:	Strontionit

**1.2. Relevant identified uses of the substance or mixture and uses advised against 1.2.1. Relevant identified uses**

Use of the substance/preparation:

Substance used as such, in formulation or in formulation of products such as:

- Glass industry
- Pyrotechnics
- Ceramics
- Electronic industry
- Chemical industry

**1.2.2. Uses advised against**

- None

Full text of use descriptors: see section 16.

**1.3. Details of the supplier of the safety data sheet**

Simba Materials Limited t/a CTM Potters Supplies

Unit 7-8

Broomhouse Lane Industrial Estate

Broomhouse Lane

Edlington

Doncaster

DN12 1EQ

T +44 (0)1709 770801 - F +44 (0)1709 770803

[doncaster@ctmpotterssupplies.co.uk](mailto:doncaster@ctmpotterssupplies.co.uk) – [www.ctmpotterssupplies.co.uk](http://www.ctmpotterssupplies.co.uk) - [admin@ctmpotterssupplies.co.uk](mailto:admin@ctmpotterssupplies.co.uk)

Unit 10A

Millpark Industrial Estate

White Cross Road

Woodbury Salterton

nr Exeter

Devon

EX5 1EL

T +44 (0)1395 233077 - F +44 (0)1395 233905

**1.4. Emergency telephone number T**

+44 (0)1709 770801 (Office hours only)

[doncaster@ctmpotterssupplies.co.uk](mailto:doncaster@ctmpotterssupplies.co.uk)

**SECTION 2: Hazards identification.****2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Not classified

Full text of H-phrases: see section 16

**Adverse physicochemical, human health and environmental effects**

No additional information available

**2.2. Label elements****Labelling according to Regulation (EC) No. 1272/2008 (CLP)**

None

No pictogram required.

**2.3. Other hazards**

This substance/mixture does not meet the PBT criteria of REACH, annex XIII.

**SECTION 3: Composition/information on ingredients.****3.1. Substances**

Chemical name	CAS Number	EC No.	%	Classification EC1272/2008
Strontium Carbonate	1633-05-2	216-648-7	>98%	Not classified
Barium Carbonate	513-77-9	208-167-3	<2.0	Acute Tox. 4 – H302

Formula: CH<sub>2</sub>O<sub>3</sub>.Sr

Full text of H- and EUH-phrases: see section 16

REACH Registration number: 01-2119502545-46-XXXX

## SECTION 4: First aid measures.

### 4.1. Description of first aid measures

**Inhalation:** Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

**Ingestion:** Rinse mouth thoroughly. Get medical attention if any discomfort continues. DO NOT INDUCE VOMITING.

**Skin contact:** IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs get medical attention/advice. Remove clothing and wash thoroughly before use.

**Eye contact:** Make sure to remove any contact lenses from the eyes before rinsing. Rinse eye with water immediately for at least 15 minutes. Get medical attention if any discomfort continues.

### 4.2. Most important symptoms and effects, both acute and delayed

**Inhalation:** Irritation of nose, throat and airway. Harmful: possible risk of irreversible effects through inhalation.

**Ingestion:** May cause discomfort if swallowed. Nausea, diarrhoea.

**Skin contact:** Prolonged contact may cause redness, irritation and dry skin.

**Eye contact:** Irritation of eyes and mucous membranes.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures.

### 5.1. Extinguishing media

**Suitable extinguishing media:** Water, dry powder, carbon dioxide, foam

**Unsuitable extinguishing media:** None

### 5.2. Special hazards arising from the substance or mixture

**Fire hazard:** Non combustible.

**Explosion hazard:** No explosive properties known.

**Reactivity:** No information available.

**Hazardous combustion products:** When heated and in case of fire, irritating vapours/gases may be formed.

### 5.3. Advice for firefighters

**Protection during firefighting:** Use of approved supplied air or self-contained breathing apparatus operated in positive pressure mode are satisfactory. Totally impervious protective suits, gloves, and boots must be worn.

## SECTION 6: Accidental release measures.

### 6.1. Personal precautions, protective equipment and emergency procedures

**General measures:** Keep public away from danger area. See section 8.2.

#### 6.1.1. For non-emergency personnel

Avoid inhalation of dust. Provide adequate ventilation. Avoid handling which leads to dust formation.

#### 6.1.2. For emergency responders

No additional information available

### 6.2. Environmental precautions

Prevent entry to sewers and soil. Notify authorities if product enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Sweep or shovel spills into appropriate container for disposal. Avoid dust production. Do not flush with water or aqueous cleaning agents.

### 6.4. Reference to other sections

See section 8 and 13 for more information.

## SECTION 7: Handling and storage.

### 7.1. Precautions for safe handling

**Precautions for safe handling:** Do not breathe dust. Wash hands plentifully and other exposed areas with water after handling. Remove contaminated clothing and shoes. Wash clothing before re-using.

**Packagings:** Even those that are empty, will retain product residue. Always obey safety warnings and handle empty packages as if they were full. Avoid all contact with this substance.

**Hygiene measures:** When using do not eat, drink or smoke. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Remove contaminated clothing and shoes.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions:** Store in dry, cool, well-ventilated area.

### 7.3. Specific end use(s)

The identified uses for this product are detailed in section 1.2

**SECTION 8: Exposure controls/personal protection.****8.1. Control parameters**

Name	STD	TWA (Total dust)	TWA (Resp. dust)
Strontium carbonate (Not listed *)	WEL	10 mg/m <sup>3</sup>	4 mg/m <sup>3</sup>
Barium Carbonate (as Ba)	WEL	0.5mg/m <sup>3</sup>	N/A

WEL: Workplace exposure limit. (\* Treat as nuisance dust)

**STRONTIUM CARBONATE****DNEL's**

End Use	Route/Exposure	Time	Potential health effects	Value
Industry	Dermal	Long Term	Systemic Effects	27.9mg/kg/day
Industry	Inhalation	Long Term	Systemic Effects	3.5mg/m <sup>3</sup>
Industry	Inhalation	Long Term	Local Effect	0.84mg/m <sup>3</sup>
Consumer	Inhalation	Long Term	Systemic Effects	1mg/m <sup>3</sup>
Consumer	Oral	Long Term	Systemic Effects	0.8mg/kg/day
Consumer	Inhalation	Long Term	Local Effect	0.17mg/m <sup>3</sup>

**PNEC's**

End Use	Value
Freshwater	2.06mg/l
Sediment (freshwater)	1.781mg/kg
Soil	323.6mg/kg
STP	4.2mg/l

The units are expressed in "mg/μg" of: Strontium.

**BARIUM CARBONATE****DNEL's**

End Use	Route/Exposure	Time	Potential health effects	Value
Industry	Inhalation	Long Term	Local Effects	0.72mg/m <sup>3</sup>
Consumer	Inhalation	Long Term	Local Effects	0.14mg/m <sup>3</sup>

**PNEC's**

End Use	Value
Freshwater	227.8 Ba/L (327.3)*
STP	50.1 mg/Ba/L (72)*
Sediment (Freshwater)	792.7mg/Ba/kg dw (1138)*
Soil	207.7mg Ba/kg dw (298.4)*

\* {mgBaCo3/L}. PNEC values are derived using the information provided in section 12.

## 8.2. Exposure controls

**Appropriate engineering controls:** Use as far as possible in a closed system. Provide a regular control of the atmosphere. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Local exhaust and general ventilation must be adequate to meet exposure standards. Please refer to the annex (exposure scenarios).

**Hand protection:** Use gloves resistant to chemical products corresponding to EN 374:3. Take advice to gloves' manufacturer.

**Eye protection:** Wear safety glasses with side shields according EN 166.

**Skin and body protection:** Wear closed protective clothing.

**Respiratory protection:** Use respiratory protection mask according to EN 140 or EN 405 with filter type P3 according to EN 143:2000 or FFP3 according to EN 149:2001.

## SECTION 9: Physical and chemical; properties.

Physical state	Solid powder, granule, pellet
Colour	White /off white
Odour	Odourless
Odour threshold	No data available
pH	7 to 8 ( at 20 <sup>0</sup> C)
Relative evaporation rate (butylacetate=1)	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	1,700 <sup>0</sup> C
Flash point	No data available
Auto ignition temperature	No data available
Decomposition temperature	ca. 667 <sup>0</sup> C
Flammability	Not flammable
Percent volatility	No data available
Relative vapour density at 20 °C	No data available
Relative density	3.79
Bulk Density	300 - 700kg/m <sup>3</sup>
Solubility in water	Slightly soluble
Solubility value (g/100g H <sup>2</sup> O@20 <sup>0</sup> C)	0.34
Log Kow	Not applicable
Viscosity, kinematic	Not applicable
Viscosity, dynamic	Not applicable
Explosive properties	Not applicable
Oxidising properties	Not applicable
Explosive limits	Not explosive

## 9.2. Other information

Mol. weight: 147.63

## SECTION 10: Stability and reactivity.

### 10.1. Reactivity

Violent reaction with: Strong acids.

### 10.2. Chemical stability

Stable under normal conditions, temperatures and pressures. The substance is hygroscopic and will absorb water by contact with the moisture in the air.

### 10.3. Possibility of hazardous reactions

Contact with acid liberates CO<sub>2</sub>. Violent reaction with: Acids

### 10.4. Conditions to avoid

Avoid excessive heat for prolonged periods.

### 10.5. Incompatible materials

Strong acids.

### 10.6. Hazardous decomposition products

Carbon dioxide (CO<sub>2</sub>) Carbon monoxide (CO), Oxides of: Strontium, Barium

## SECTION 11: Toxicological information.

### 11.1. Information on toxicological effects

#### Toxicology information

Based on available data the classification criteria are not met – According to Regulation (EC) No. 1907/2006 (REACH)

**Acute Toxicity:**- LD50 Oral Rat: >2,000mg/kg

Strontium Nitrate. Read across approach.

**Acute Toxicity:**- LD50 Dermal: Scientifically unjustified

**Acute Toxicity:**- LC50 Inhalation Mouse (4 hours): >4.5mg/l (dust/mist)

Strontium Nitrate. Read across approach.

#### Skin Corrosion/Irritation:

Data lacking.

#### Serious eye damage/Irritation:

Data lacking.

#### Respiratory or skin sensitisation:

Skin sensitisation: Guinea pig maximization test (GPMT)

Strontium Chloride. Read across approach – Non sensitising

#### Germ cell mutagenicity:

Genotoxicity – In Vitro: Chromosome aberration.

Strontium Nitrate. Read across approach - Negative

Genotoxicity – In Vivo: Data lacking.

#### Carcinogenicity:

No evidence of carcinogenicity in animal studies.

**Reproductive Toxicity:**

Reproductive Toxicity: - Development

Developmental toxicity: - Oral Mouse

Target Organs: Skeleton, Bone, observed effect.

Conclusive data but not sufficient for classification.

**Specific target organ toxicity – repeated exposure:**

STOT – Repeated exposure:

LOAEL 634mg.kg Oral Rat

Target Organs: Bone structure.

Conclusive data but not sufficient for classification.

**General information:**

Chronic exposure to the product can cause bone calcification disorders.

**Inhalation:**

Harmful: possible risk of irreversible effects through inhalation.

**Ingestion:**

May cause discomfort if swallowed.

**Skin contact:**

Powder may irritate skin.

**Eye contact:**

Particles in the eyes may cause irritation and smarting.

**Specific effects:**

No data exists on the effects of nanometre sized particles on the body.

**SECTION 12: Ecological information.****12.1. Toxicity**

The product has poor water-solubility. Based on available data the classification criteria are not met.

LC50 96 hours >97.45 mg/l *Cyprinus carpio* (Common carp)

Read across approach: Strontium Nitrate.

**Acute Toxicity – Aquatic Invertebrates:** EC50 48 hours 125 mg.l *Daphnia magna*.

Read across approach: Strontium Chloride.

**12.2. Persistence and degradability**

**Degradability:** In water and Soil: Slow ionization and precipitation of the cation, Sr (+). In the presence of sulphates and carbonates.

**Biodegradation:** Not applicable – Inorganic chemical.

**12.3. Bioaccumulative potential**

**Bioaccumulative potential:** Potential accumulation of the strontium cation in terrestrial plants.

**Partition coefficient:** Not applicable – Inorganic chemical.

**12.4. Mobility in soil**

**Mobility:** Slightly soluble in water

**Adsorption/Desorption Coefficient:** Soil – Considerable adsorption.

**12.5. Results of PBT and vPvB assessment**

This substance/mixture does not meet the PBT or vPvB criteria of REACH, annex XIII.

**12.6. Other adverse effects**

Do not allow large quantities of this material to reach ground water, water course or sewerage system.



## SECTION 13: Disposal considerations.

### 13.1. Waste treatment methods

**Waste treatment methods:** Dispose of this material and residues in accordance with local authority requirements.

**Additional information:** Empty packaging can have residues or dusts and are subject to proper waste disposal, as above.

**Ecology - waste materials:** See the European waste catalogue.

## SECTION 14: Transport information.

### 14.1. UN number

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

### 14.2. UN proper shipping name

Not classified for transportation.

### 14.3. Transport hazard class(es)

Not classified for transportation.

### 14.4. Packing group

Not classified for transportation.

### 14.5. Environmental hazards

Other information: Not environmental hazards known with this product.

### 14.6. Special precautions for user

Not classified for transportation.

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

## SECTION 15: Regulatory information.

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

#### Approved code of practice:

Classification and labelling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations.

#### Guidance notes:

Workplace Exposure Limits EH40.

**EU Legislation:**

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18<sup>th</sup> December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulations (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16<sup>th</sup> December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

**15.2. Chemical Safety Assessment.**

No chemical safety assessment has been carried out.

**SECTION 16: Other information.****Abbreviations and acronyms:**

ADN: European Agreement concerning international carriage of Dangerous goods by Inland waterways

ADR: European Agreement concerning international carriage of Dangerous goods by Road

AF: Assessment factor

BCF: Bioconcentration factor

Bw: Body weight

CAS: Chemical Abstracts Service

CLP: Classification, labelling, packaging

CSR: Chemical Safety Report

DMEL: Derived maximum effect level

DNEL: Derivative No effect Level

EC: European Community

ELV: Emission limit values

EN: European Norm

EUH: European Hazard Statement

EWC: European Waste catalogue

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

IMDG: International Maritime Dangerous Goods

LC50: Median lethal concentration

LD50: Median lethal dose

NOAEL: No-observed-adverse-effect-level

NOEC: No observed effect concentration

NOEL: No observed effect level

OEL: Operator exposure level

PBT: Persistent, bioaccumulative, Toxic

PEC: Predicted effect level

PNEC: Predicted No effect Concentration

REACH: Registration, evaluation and autorisation of chemicals

RID: Regulations concerning the international carriage of dangerous goods by rail

STEL: Short Term Exposure Limit

TWA: Time weighted average

vPvB: Very persistent, very bioaccumulative.

**Training advice:** None.

No R, S or H phrases applicable.

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*

*DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable*