

Section 1: Product & Company Information

Product Identifier: Strontium Chloride, Reagent

Other Means of Identification

Product Number: 100023

Recommended Use and Restrictions on Use

Recommended Use: Research and product development
Restrictions on Use: No data available.

Manufacturer / Importer / Supplier / Distributor Information

Company Name: CORECHEM Inc.

Address: 4320 Greenway Drive
Knoxville, TN 37918 USA

Information Telephone Number: 1-865-524-4239

Fax Number: 1-865-524-3375

Website: www.corecheminc.com

Contact Person: Regulatory Manager

E-mail: regulatory@corecheminc.com

Emergency Phone Number: Chemtrec® 1-800-424-9300 / Outside USA 1-703-527-3887 (monitored 24 hours/day)

Section 2: Hazards Identification

GHS Hazard Classification(s)

In accordance with OSHA Hazard Communication Standard 29 CFR 1910.1200 (HazCom 2012).

Physical Hazard(s)

Not classified.

Health Hazard(s)

(Corrosion) Damage/Irritation, Eye - 1

Environmental Hazard(s)

Not classified.

Label Elements

Signal Word

DANGER

Hazard Symbol(s)



Hazard Statement(s)

H318: Causes serious eye damage.

Precautionary Statements

General

Not applicable.

Prevention

P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310: Immediately call a POISON CENTER or doctor/physician.

Storage

Not applicable.

Disposal

P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC)

None known.

Section 3: Composition/Information on Ingredients

Substance

Chemical Identity ²	Common Name/Synonym(s)	CAS # ³	Weight %	Impurity or Stabilizing Additive
Strontium Chloride, Hexahydrate	-	10025-70-4	100%	No

- Information regarding the composition and the percentage ranges of the mixtures ingredients are not presented as its Confidential Business Information (CBI). Where a medical emergency exists (as determined by medical professional), timely disclosure of CBI is assured. The information omitted pertains to only the names of the substances and the concentration in the mixture (product) and can only be requested by a doctor/physician or Local/State/Provincial or Federal Authority.
- Non-hazardous ingredients are not presented as to protect the proprietary formula of the product.
- "—" Indicates ingredient is a mixture and contains multiple ingredients or may have no identifying CAS number.

Section 4: First-Aid Measures

General Information

Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Wash contaminated clothing before reuse.

Inhalation

Move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin Contact

Wash off with soap and plenty of water. Consult a physician.

Eye Contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician

Ingestion

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms/effects, acute and delayed

Symptoms

Symptoms of acute toxicity are excessive salivation, vomiting, colic, and diarrhea, and possibly respiratory failure. The gastrointestinal absorption of soluble strontium ranges from 5 to 25%.

Indication of immediate medical attention and special treatment needed

Hazards

No data available.

Treatment

No data available.

Section 5: Fire-Fighting Measures

General Fire Hazards

No data available.

Suitable (and Unsuitable) Extinguishing Media

Suitable Extinguishing Media

Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media

No data available.

Specific Hazards Arising from the Chemical

Oxides of strontium, hydrogen chloride gas.

Special Protective Equipment and Precautions for Firefighters

Special Fire-Fighting Equipment Procedures

No data available.

Special Protective Equipment for Fire-Fighters

As in any fire, wear self-contained breathing apparatus pressure-demand (OSHA/NIOSH approved or equivalent) and full protective gear.

Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Use personal protective equipment. Avoid breathing dust, mist or gas. Ensure adequate ventilation.

Methods and Materials for Containment and Clean-Up

Do not let product enter drains. Prevent spread or spill. Use dustless methods and place into suitable container for proper disposal.

Notification Procedures

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions

No data available.

Section 7: Handling and Storage

Precautions for Safe Handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for Safe Storage, including any Incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Keep away from Strong oxidizers.

Section 8: Exposure Controls/Personal Protection

Control Parameters

Occupational Exposure Limits

The product does not contain any relevant quantities of hazardous materials with critical values that have to be monitored in the workplace.

Biological Limit Values

The product does not contain any relevant quantities of hazardous materials with assigned biological limit values.

Appropriate Engineering Controls

Ventilation Requirements: Local exhaust, chemical fume hood.

Individual protection measures, such as personal protective equipment (PPE)

General Information

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Eye/Face Protection

Wear safety glasses with side shields.

Skin Protection

Hand Protection

Wear appropriate chemical resistant gloves. Impervious gloves. Gloves must be inspected prior to use.

Other

Wear appropriate chemical resistant clothing. Impervious work clothing

Respiratory Protection

Filter-dust, fumes, mist respirator.

Hygiene Measures

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated footwear that cannot be cleaned. Wash hands before breaks and immediately after handling the product. Wash contaminated clothing before reuse. Avoid contact with eyes, skin, and clothing.

Section 9: Physical and Chemical Properties

Appearance:

Physical State: Crystalline Powder
Color: White to Tan

Odor: Odorless

Odor Threshold: No data available.

pH: 5.0-7.0

Melting Point/Freezing Point: 115 °C

Initial Boiling Point and Boiling Range: 1250 °C

Flash Point:

No data available.

Evaporation Rate (butyl acetate=1): No data available.

Flammability (solid, gas): No data available.

Upper/Lower Limit on Flammability or Explosive Limits

Flammability Limit – Upper: No data available.

Flammability Limit – Lower: No data available.

Explosive Limit – Upper: No data available.

Explosive Limit – Lower: No data available.

Vapor Pressure: No data available.

Vapor Density (air =1): No data available.

Relative Density (water=1): 1.93

Solubility(ies):

Solubility in water: 1062 g/L @ 0 C

Solubility (other): No data available.

Partition coefficient (n-octanol/water): No data available.

Auto-Ignition Temperature: No data available.

Decomposition Temperature: No data available.

Viscosity: No data available.

Other Information:

Molecular Weight: 266.62 g/mol

Formula: $\text{SrCl}_2 \cdot 6\text{H}_2\text{O}$

Section 10: Stability and Reactivity

Reactivity

No data available.

Chemical Stability

Material is stable under normal conditions.

Possibility of Hazardous Reactions

Contact with powerful oxidizing agents may cause fires.

Conditions to Avoid

Contact with incompatibles

Incompatible Materials

Strong oxidizers

Hazardous Decomposition

Products

Oxides of strontium, hydrogen chloride gas

Section 11: Toxicological Information

Information on routes of exposure

Ingestion: No data available.

Inhalation: May cause irritation

Skin Contact: No data available.

Eye Contact: Causes serious eye damage

Information on Toxicological Effects

Acute Toxicity (List all possible routes of exposure)

Oral

(Rat) LD50: 2,000 mg/kg

Dermal

No data available.

Inhalation

(Rat) LC50: > 4.5 mg/l:4H

Repeated Dose Toxicity

No data available.

Skin Corrosion/Irritation

rabbit-skin: No skin irritation:4H

Serious Eye Damage/Eye Irritation

(Rabbit) eyes: Causes serious eye damage

Respiratory/Skin Sensitization

No data available.

Carcinogenicity

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

US. National Toxicology Program (NTP) Report on Carcinogens

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Germ Cell Mutagenicity

In Vitro

No mutagenic components identified.

In Vivo

No mutagenic components identified.

Reproductive Toxicity

None known.

Specific Target Organ Toxicity - Single Exposure

None known.

Specific Target Organ Toxicity - Repeated Exposure

None known.

Aspiration Hazard

Not classified.

Other Effects

Acute: Symptoms of acute toxicity are excessive salivation, vomiting, colic, and diarrhea, and possibly respiratory failure. The gastrointestinal absorption of soluble strontium ranges from 5 to 25%.

Section 12: Ecological Information

Ecotoxicity

Acute Hazards to the Aquatic Environment

Fish

Morone saxatilis (Striped bass) LC50: > 92.8 mg/l:96H

Aquatic Invertebrates

Daphnia magna (Water flea) EC50: 125 mg/l:48H

Toxicity to Aquatic Plants

Green algae ErC50: 104.7 mg/l:72H

Chronic Hazards to the Aquatic Environment**Fish**

No data available.

Aquatic Invertebrates

No data available.

Toxicity to Aquatic Plants

No data available.

Persistence and Degradability**Biodegradation**

There are no data on the degradability of this product.

BOD/COD Ratio

No data available.

Bioaccumulative Potential**Bioconcentration Factor (BCF)**

No data available on bioaccumulation.

Partition Coefficient n-octanol / water (log Kow)

No data available.

Mobility in Soil

No data available.

Other Adverse Effects

No data available.

Section 13: Disposal Considerations

Disposal Instructions

Consult state, local or national regulation for proper disposal Allow professional disposal company to handle waste Must be specially treated under adherence to official regulations

Contaminated Packaging

Disposal must be made according to official regulations. Dispose of it as unused product.

Section 14: Transportation Information

US Department of Transportation (DOT)

This material is not regulated as a hazardous material for transport by the U.S. Department of Transportation in accordance with 49 CFR 172.101.

Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.

Section 15: Regulatory Information

US Federal Regulations**Toxic Substance Control Act (TSCA), Chemical Substance Inventory, Section 8(b)**

This product or ingredient(s) are listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substance List (40 CFR 302.4)

No chemical(s) in this material are subject to the reporting requirements of CERCLA.

Clean Air Act (CAA), Section 112(r)

No chemical(s) in this material are subject to the reporting requirements of CAA.

Emergency Planning and Community Right-To-Know Act (EPCRA)**EPCRA 302 Extremely Hazardous Substance**

No chemical(s) in this material are subject to the reporting requirements of SARA Title III, Section 302.

EPCRA 304 Emergency Response Notification

No chemical(s) in this material are subject to the reporting requirements of SARA Title III, Section 304.

EPCRA 311/312 Emergency and Hazardous Materials Reporting

Fire Hazard: No
Sudden Release of Pressure: No
Reactive: No
Acute (Immediate) Health: Yes
Hazard:
Chronic (Delayed) Health: No
Hazard:

EPCRA 313 Toxic Chemical Release Inventory (TRI) Reporting

This material does not contain any chemical(s) with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations**California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Important Note: Due to the changing nature of regulatory requirements, the information in this document should NOT be considered all-inclusive or authoritative. Users should make their own investigations to determine the suitability of the information for their particular purposes. International, Federal, State and Local regulations should be consulted to determine compliance with all required reporting requirements.

Section 16: Other Information**Hazardous Materials Identification System (HMIS®) Classification**

Health Hazard: 1

Chronic Health Hazard: /

Flammability: 0

Physical Hazard: 0

(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

National Fire Protection Association (NFPA 704) Rating

Health Hazard: 1

Fire Hazard: 0

Reactivity Hazard: 0

Special: N/A

(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

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Key to Abbreviations and**Acronyms**

ATE - Acute Toxicity Estimate
BCF - Bioconcentration Factor
EC50 - Effective concentration, 50%
IDHL - Immediately Dangerous to Life and Health
Kg - Kilogram
l - Liter
lb - Pound
LC50 - Lethal Concentration, 50%
LD50 - Lethal Dose, 50%
mg - milligram
ml - milliliter
N/A - Not Applicable
N/D - Not Determined
PEL - Permissible Exposure Limit
REL - Recommended Exposure Limit
STEL - Short-term Exposure Limit
TWA - Time weighted average

ACGIH - American Conference of Industrial Hygienists
AIHA - American Industrial Hygiene Association
BEI - Biological Exposure Indices
CAS - Chemical Abstracts Service
DOT - US Department of Transportation
EPA - US Environmental Protection Agency
GHS - Globally Harmonized System of Classification and Labelling of Chemicals
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association
IBC - Intermediate Bulk Container
IMDG - International Maritime Dangerous Goods
NIOSH - National Institute for Occupational Safety and Health
NTP - National Toxicology Program
OSHA - US Occupational Health and Safety Administration
SARA - US EPA Superfund Amendments and Reauthorization Act
TSCA - US EPA Toxic Substances Control Act
UN - United Nations

References

HSDB® - Hazardous Substances Data Bank

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