according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

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1 Identification
Product identifier
 Trade name: <u>Stannous Chloride Powder</u> Product code: SC7555-J
 Recommended use and restriction on use Recommended use: Laboratory chemicals Restrictions on use: No relevant information available.
 Details of the supplier of the Safety Data Sheet Manufacturer/Supplier: AquaPhoenix Scientific, Inc. 860 Gitts Run Road Hanover, PA 17331 USA Tel +1 (717)632-1291 Toll-Free: (866)632-1291 info@aquaphoenixsci.com Distributor: AquaPhoenix Scientific 860 Gitts Run Road, Hanover, PA 17331 (717) 632-1291
 Emergency telephone number: ChemTel Inc. (800)255-3924 (North America) +1 (813)248-0585 (International)
2 Hazard(s) identification Classification of the substance or mixture

Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2A H319 Causes serious eye irritation.
STOT SE 2 H371 May cause damage to the nervous system.
STOT RE 2 H373 May cause damage to the liver and the bone tissue through prolonged or repeated exposure. Route of exposure: Oral.

[·] Label elements

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS). • Hazard pictograms:



Signal word: Warning
Hazard statements:
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H371 May cause damage to the nervous system.

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Trade name: Stannous Chloride Powder (Cont'd. of page 1) H373 May cause damage to the liver and the bone tissue through prolonged or repeated exposure. Route of exposure: Oral. · Precautionary statements: P260 Do not breathe dust. P264 Wash thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P280 Wear protective gloves/protective clothing/eye protection. P302+P352 If on skin: Wash with plenty of soap and water. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Call a poison center/doctor. P308+P311 If skin irritation occurs: Get medical advice/attention. P332+P313 Take off contaminated clothing and wash it before reuse. P362+P364 If eye irritation persists: Get medical advice/attention. P337+P313 P405 Store locked up. P501 Dispose of contents/container in accordance with local/regional/national/international regulations. • **Other hazards** There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

· Chemical characterization: Mixtures

· Components:		
7757-82-6 sc	odium sulfate	97.5%
	tannous chloride dihydrate STOT SE 2, H371; STOT RE 2, H373 Met. Corr.1, H290; Skin Corr. 1B, H314; Eye Dam. 1, H318 Acute Tox. 4, H302	2.5%

4 First-aid measures	
· Description of first aid measures	
· General information: No special measures required.	
After inhalation: Supply fresh air; consult doctor in case of complaints.	
After skin contact:	
Brush off loose particles from skin.	
Immediately wash with water and soap and rinse thoroughly.	
If skin irritation continues, consult a doctor.	
· After eye contact:	
Remove contact lenses if worn.	
Rinse opened eye for several minutes under running water. Then consult a doctor.	
· After swallowing:	
Rinse out mouth and then drink plenty of water.	
Do not induce vomiting; immediately call for medical help.	
 Most important symptoms and effects, both acute and delayed: 	
Causes skin and eye irritation.	
Gastric or intestinal disorders when ingested.	
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Nausea in case of ingestion.

Diarrhea.

Danger:

Danger of gastric perforation.

May cause damage to the nervous system.

May cause damage to the liver and the bone tissue through prolonged or repeated exposure. Route of exposure: Oral.

Indication of any immediate medical attention and special treatment needed:

No relevant information available.

5 Fire-fighting measures

[·] Extinguishing media

· Suitable extinguishing agents: Use fire fighting measures that suit the environment.

- For safety reasons unsuitable extinguishing agents: No relevant information available.
- · Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced.

- Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

6 Accidental release measures

[•] Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

Wear protective equipment. Keep unprotected persons away.

For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.

Environmental precautions Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up

Pick up mechanically.

Dispose of the collected material according to regulations.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

[.] Handling

· Precautions for safe handling:

Prevent formation of dust.

Any deposit of dust which cannot be avoided must be regularly removed.

Do not dry clean dust covered objects and floors. Wash thoroughly with plenty of water.

· Information about protection against explosions and fires: No special measures required.

• Conditions for safe storage, including any incompatibilities

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 Requirements to be met by storerooms and receptacles: Store in corrosive resistant container with a resistant inner liner. Unsuitable material for receptacle: aluminium. Information about storage in one common storage facility: Store away from oxidizers, strong acids, strong bases. Store away from metals. Store away from foodstuffs. Further information about storage conditions: This product is hygroscopic. Keep containers tightly sealed. Store in cool, dry conditions in well sealed receptacles. 	(Cont'd. of page 3
• Specific end use(s) No relevant information available.	

8 Exposure controls/personal protection

· Control	parameters
-----------	------------

 Components w 	ith limit values that require monitoring at the workplace:
7757-82-6 sodi	um sulfate
TLV (USA)	Short-term value: NIC-0.2 mg/m ³ thoracic fraction of aerosol
10025-69-1 Sta	nnous chloride dihydrate
PEL (USA)	Long-term value: 2 mg/m³ as Sn
REL (USA)	Long-term value: 2 mg/m³ as Sn
TLV (USA)	Long-term value: (2) NIC-2* mg/m³ *inhalable fraction, as Sn
EV (Canada)	Long-term value: 2 mg/m³ as Sn
LMPE (Mexico)	Long-term value: 2 mg/m³ como Sn

• Exposure controls

General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

• Engineering controls: No relevant information available.

· Breathing equipment:

Not required under normal conditions of use.

Use suitable respiratory protective device when high concentrations are present. • **Protection of hands:**



Protective gloves

• **Material of gloves** Nitrile rubber, NBR Neoprene gloves

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Butyl rubber, BR Fluorocarbon rubber (Viton) Natural rubber, NR Sensibilization by the components in the glove materials is possible.

Eye protection:

Contact lenses should not be worn.



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

• Body protection: Protective work clothing

- · Limitation and supervision of exposure into the environment No special requirements.
- Risk management measures No special requirements.

Information on basic physical	and chemical properties
Appearance: Form:	Crystalline
Color:	Off-white
Odor:	Characteristic
Odor threshold:	Not determined.
pH-value:	Not applicable.
Melting point/Melting range:	Not determined.
Boiling point/Boiling range:	Not determined.
Flash point:	The product is not flammable.
Flammability (solid, gaseous):	Product is not flammable.
Auto-ignition temperature:	Not determined.
Decomposition temperature:	Not determined.
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits	
Lower:	Not determined.
Upper:	Not determined.
Oxidizing properties:	Not determined.
Vapor pressure:	Not determined.
Density:	
Relative density:	Not determined.
Vapor density:	Not applicable.
Evaporation rate:	Not applicable.
Solubility in / Miscibility with	
Water:	Easily soluble.

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Viscosity		
Dynamic:	Not applicable.	
Kinematic:	Not applicable.	
Other information	No relevant information available.	
Stability and reactivity		
• Reactivity: No relevant inform	ation available.	
	er normal temperatures and pressures.	
Thermal decomposition / con		
	tored according to specifications.	
Possibility of hazardous re		
Reacts violently with oxidizing a		
Reacts with strong acids and all Reacts with certain metals.	(all.	
Conditions to avoid Moistur		
Incompatible materials	e.	
Oxidizers, strong bases, strong	acida	
Metals.	acids	
[•] Hazardous decomposition	products	
Under fire conditions only:	producto	
Sulfur oxides (SOx)		
Chlorine compounds		
Toxic metal compounds		
Toxicological informatio	n	
Information on toxicologic	al offocts	
	able data, the classification criteria are not me	t
· LD/LC50 values that are relev		
7757-82-6 sodium sulfate	<u></u>	
Oral LD50 5989 mg/kg (mouse	e)	
Primary irritant effect:		
• On the skin: Irritant to skin and		
• On the eye: Causes eye irritatio		
	ble data, the classification criteria are not met.	
-	May cause damage to the nervous system.	
IARC (International Agency fo	-	
None of the ingredients are liste		
NTP (National Toxicology Pro		
None of the ingredients are liste	d.	
· OSHA-Ca (Occupational Safe	y & Health Administration):	
None of the ingredients are liste	d.	

None of the ingredients are listed.

· Probable route(s) of exposure:

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Ingestion.	, i
Inhalation.	
Eye contact.	
Skin contact.	
· Acute effects (acute toxicity, irritation and corrosivity):	
Irritating to eyes and skin.	
May cause damage to the nervous system.	
Repeated dose toxicity:	
May cause damage to the liver and the bone tissue through prolonge exposure: Oral.	ed or repeated exposure. Rou
· Germ cell mutagenicity: Based on available data, the classification cri	iteria are not met.
· Carcinogenicity: Based on available data, the classification criteria are	e not met.
· Reproductive toxicity: Based on available data, the classification crite	eria are not met.
STOT-single exposure: May cause damage to the nervous system.	
STOT-repeated exposure:	
May cause damage to the liver and the bone tissue through prolonge exposure: Oral.	ed or repeated exposure. Rou
· Aspiration hazard: Based on available data, the classification criteria a	are not met.

· Toxicity

· Aquatic toxicity No relevant information available.

- · Persistence and degradability No relevant information available.
- · Bioaccumulative potential: No relevant information available.
- **Mobility in soil:** No relevant information available.
- Additional ecological information
- · General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

• Other adverse effects No relevant information available.

13 Disposal considerations

[•] Waste treatment methods

· Recommendation:

Smaller quantities can be disposed of with household waste.

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

[·] Uncleaned packagings

· Recommendation: Disposal must be made according to official regulations.

14 Transport information

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[·] UN-Number · DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.
 UN proper shipping name DOT, ADR/RID/ADN, IMDG, IATA 	Not regulated.
[·] Transport hazard class(es)	
· DOT, ADR/RID/ADN, IMDG, IATA · Class	Not regulated.
· Packing group · DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.
· Environmental hazards	Not applicable.
Special precautions for user	Not applicable.
Transport in bulk according to Annex MARPOL73/78 and the IBC Code	II of Not applicable.
mixture	gulations/legislation specific for the substanc
• Safety, health and environmental reg mixture • United States (USA) • SARA	
[•] Safety, health and environmental reg mixture • United States (USA)	
 Safety, health and environmental reg mixture United States (USA) SARA Section 302 (extremely hazardous substated) 	nces):
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None of the ingredients are listed.

Canadian Domestic Substances List (DSL):

10025-69-1 Stannous chloride dihydrate

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association CAS: Chemical Abstracts Service (division of the American Chemical Society) LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

OSHA: Occupational Safety & Health Administration

Met. Corr.1: Corrosive to metals - Category 1

Acute Tox. 4: Acute toxicity – Category 4 Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Corr. 1B: Skin corrosion/irritation – Category 1B Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

STOT SE 2: Specific target organ toxicity (single exposure) – Category 2

STOT RE 2: Specific target organ toxicity (repeated exposure) - Category 2

Sources

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/ overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers