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Safety Data Sheet

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

Printing date: August 23, 2018 Revision: August 23, 2018

1 Identification

· Product identifier

· Trade name: Total Chelant Powder

· Product code: TC1050SS

· 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 Phone: (717)632-1291 Toll-Free: (866)632-1291 info@aquaphoenixsci.com

· 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

Acute Tox. 4 H302 Harmful if swallowed.

Combustible Dust May form combustible dust concentrations in air.

· Additional information: Contact with acids liberates toxic gas.

- · Label elements
- · GHS label elements

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

Hazard pictograms:



GHS07

· Signal word: Warning

· Hazard statements:

H302 Harmful if swallowed.

May form combustible dust concentrations in air.

· Precautionary statements:

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product. P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.

P330 Rinse mouth.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

· Additional information: Contact with acids liberates toxic gas.

· Other hazards There are no other hazards not otherwise classified that have been identified.

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3 Composition/information on ingredients

· Chemical characterization: Mixtures

| · Components: | | | |
|---------------|--|-------|--|
| 50-81-7 | Ascorbic acid | >80% | |
| | Combustible Dust | | |
| 7681-49-4 | sodium fluoride | 5-10% | |
| | Acute Tox. 3, H301 Skin Irrit. 2, H315; Eye Irrit. 2A, H319 | | |
| 67762-90-7 | Fumed silica | 1-5% | |
| 1945-77-3 | Tetrasodium N,N'-[3H-2,1-benzoxathiol-3-ylidenebis[[6-hydroxy-5-isopropyl-2-methylphen-3,1-ylene]methylene]]bis[N-(carboxylatomethyl)aminoacetate] S,S-dioxide | | |

· Additional information:

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret. For the wording of the listed Hazard Statements, refer to section 16.

4 First-aid measures

- · Description of first aid measures
- · General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact:

Brush off loose particles from skin.

Rinse with warm water.

If skin irritation continues, consult a doctor.

· After eve contact:

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, 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:

Gastric or intestinal disorders when ingested.

Causes mild skin irritation.

May cause mild to moderate eye irritation.

- · Danger: Harmful if swallowed.
- · Indication of any immediate medical attention and special treatment needed:

Contains soluble fluoride. Consult literature for specific antidotes.

Medical supervision for at least 48 hours.

5 Fire-fighting measures

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

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· 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.

May form combustible dust concentrations in air.

- Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

· Additional information: Cool endangered product with water spray.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

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

Environmental precautions

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

Inform respective authorities in case of seepage into water course or sewage system.

· Methods and material for containment and cleaning up

Pick up mechanically.

Send for recovery or disposal in suitable receptacles.

· 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.

Use only in well ventilated areas.

· Information about protection against explosions and fires:

May form combustible dust concentrations in air.

Keep respiratory protective device available.

· Conditions for safe storage, including any incompatibilities

· Requirements to be met by storerooms and receptacles:

Avoid storage near extreme heat.

Storage area should be dry and well-ventilated.

Store only in the original receptacle.

· Information about storage in one common storage facility:

Do not store together with acids.

Store away from foodstuffs.

Store away from oxidizing agents.

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Protect from humidity and water.

- · Further information about storage conditions: Keep containers tightly sealed.
- · Specific end use(s) No relevant information available.

8 Exposure controls/personal protection

· Control parameters

| · Components with limit values that require monitoring at the workplace | with limit values that require monitoring at the workplace: |
|---|---|
|---|---|

| 7681-49-4 sodium fluoride | |
|---------------------------|--|
| PEL (USA) | Long-term value: 2.5 mg/m³ as F |
| REL (USA) | Long-term value: 2.5 mg/m³ as F |
| TLV (USA) | Long-term value: 2.5 mg/m³ as F, BEI |
| EL (Canada) | Long-term value: 2.5 mg/m³ as F |
| LMPE (Mexico) | Long-term value: 2.5 mg/m³ A4, IBE; como F |

· Ingredients with biological limit values:

7681-49-4 sodium fluoride

BEI (USA) 2 mg/L

Medium: urine Time: prior to shift

Parameter: Fluoride (background, nonspecific)

3 mg/L Medium: urine Time: end of shift

Parameter: Fluoride (background, nonspecific)

· Exposure controls

· General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- · Engineering controls: Provide adequate ventilation.
- Breathing equipment: Not required under normal conditions of use.
- Protection of hands:



Protective gloves

Material of gloves Nitrile rubber, NBR Butyl rubber, BR

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Neoprene gloves Fluorocarbon rubber (Viton)

· Eye protection:



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 relevant information available.

| 9 Physical and chemical properties | | | | |
|--|---|------------------|--|--|
| • • | formation on basic physical and chemical properties | | | |
| · Appearance: | | | | |
| Form: | Crystalline powder | | | |
| Color: | Blue | | | |
| · 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): | Not determined. | | | |
| · 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: | Soluble. | | | |
| · Partition coefficient (n-octanol/water): Not determined. | | | | |
| · Viscosity | | | | |
| Dynamic: | Not applicable. | | | |
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Kinematic: Not applicable.

• Other information No relevant information available.

10 Stability and reactivity

- · Reactivity: No relevant information available.
- · Chemical stability: Stable under normal temperatures and pressures.
- · Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

· Possibility of hazardous reactions

Toxic fumes may be released if heated above the decomposition point.

Contact with acids releases toxic gases.

Reacts with strong mineral acids forming hydrogen fluoride.

Reacts with oxidizing agents.

Reacts with alkali (lyes).

May form combustible dust concentrations in air.

- · Conditions to avoid No relevant information available.
- · Incompatible materials No relevant information available.
- · Hazardous decomposition products

Hydrogen fluoride

Carbon monoxide and carbon dioxide

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · LD/LC50 values that are relevant for classification:

ATE (Acute Toxicity Estimate)

Oral LD50 900-1,200 mg/kg (rat)

7681-49-4 sodium fluoride

Oral LD50 52 mg/kg (rat)

- Primary irritant effect:
- · On the skin:

Causes mild skin irritation.

Based on available data, the classification criteria are not met.

· On the eye:

May cause mild to moderate eye irritation.

Based on available data, the classification criteria are not met.

- · Sensitization: Based on available data, the classification criteria are not met.
- IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

· NTP (National Toxicology Program):

None of the ingredients are listed.

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· OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

· Probable route(s) of exposure:

Ingestion.

Inhalation.

Eve contact.

Skin contact.

· Acute effects (acute toxicity, irritation and corrosivity):

Harmful if swallowed.

Causes mild skin irritation.

- · Repeated dose toxicity: No relevant information available.
- · Germ cell mutagenicity: Based on available data, the classification criteria are not met.
- · Carcinogenicity: Based on available data, the classification criteria are not met.
- · Reproductive toxicity: Based on available data, the classification criteria are not met.
- · STOT-single exposure: Based on available data, the classification criteria are not met.
- · STOT-repeated exposure: Based on available data, the classification criteria are not met.
- · Aspiration hazard: Based on available data, the classification criteria are not met.

12 Ecological information

- · 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.

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. 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.
- · Recommended cleansing agent: Water, if necessary with cleansing agents.

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|--|--|--|--|--|
| 14 Transport information | | | | |
| · UN-Number | | | | |
| · DOT, ADR, IMDG, IATA | Not regulated. | | | |
| UN proper shipping name DOT, ADR, IMDG, IATA | Not regulated. | | | |
| · Transport hazard class(es) | | | | |
| · DOT, ADR, IMDG, IATA | | | | |
| · Class | Not regulated. | | | |
| · Packing group | | | | |
| · DOT, ADR, IMDG, IATA | Not regulated. | | | |
| · Environmental hazards | Not applicable. | | | |
| · Special precautions for user | Not applicable. | | | |
| | Transport in bulk according to Annex II of | | | |
| MARPOL73/78 and the IBC Code | Not applicable. | | | |
| | | | | |

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · United States (USA)
- · SARA
- · Section 302 (extremely hazardous substances):

None of the ingredients are listed.

· Section 355 (extremely hazardous substances):

None of the ingredients are listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

· TSCA (Toxic Substances Control Act)

All ingredients are listed.

- · Proposition 65 (California)
- · Chemicals known to cause cancer:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity for females:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity for males:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

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· EPA (Environmental Protection Agency):

None of the ingredients are listed.

· IARC (International Agency for Research on Cancer):

7681-49-4 sodium fluoride

3

· Canadian Domestic Substances List (DSL) (Substances not listed.):

All ingredients are listed.

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

PBT: Persistant, Bio-accumulable, Toxic

vPvB: very Persistent and very Bioaccumulative

OSHA: Occupational Safety & Health Administration

Acute Tox. 3: Acute toxicity – Category 3
Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation - Category 2

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

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

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