Printing date 07/03/2024

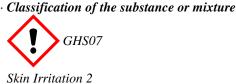
Reviewed on 07/03/2024

1 Identification

- · Product identifier
- Trade name: Ceric Sulfate, Reagent Grade
- · Article number: C2375
- CAS Number: 17106-39-7
- Details of the supplier of the safety data sheet • Manufacturer/Supplier: Aqua Solutions, Inc. 6913 Highway 225
- DEER PARK, TX 77536 USA 800-256-2586
- Information department: Technical Coordinator Sherman Nelson shermann@aquasolutions.org
 Emergency telephone number: Chemtrec: 800-424-9300

2 Hazard(s) identification

Canutec: 613-996-6666



H315 Causes skin irritation.

Specific Target Organ Toxicity - Single Exposure 3 H335 May cause respiratory irritation.

· Label elements

- GHS label elements The substance is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms



- · Signal word Warning
- Hazard statements

Causes skin irritation.

May cause respiratory irritation.

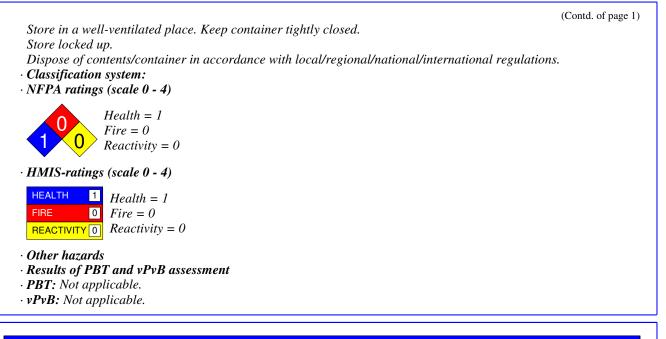
- · Precautionary statements
- Avoid breathing dust/fume/gas/mist/vapors/spray
- Wash thoroughly after handling.
- Use only outdoors or in a well-ventilated area.
- Wear protective gloves.
- If on skin: Wash with plenty of water.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- Call a poison center/doctor if you feel unwell.
- Specific treatment (see on this label).
- Take off contaminated clothing and wash it before reuse.
- If skin irritation occurs: Get medical advice/attention.

(Contd. on page 2)

Printing date 07/03/2024

Reviewed on 07/03/2024

Trade name: Ceric Sulfate, Reagent Grade



3 Composition/information on ingredients

- Chemical characterization: Substances • CAS No. Description
- CAS: 17106-39-7 Ceric Sulfate, Reagent Grade

4 First-aid measures

- · Description of first aid measures
- After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: If symptoms persist consult doctor.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

5 *Fire-fighting measures*

- · Extinguishing media
- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures Not required.

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

(Contd. on page 3)

Printing date 07/03/2024

Reviewed on 07/03/2024

(Contd. of page 2)

Trade name: Ceric Sulfate, Reagent Grade

- · Methods and material for containment and cleaning up: Ensure adequate ventilation.
- · 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.

- · Protective Action Criteria for Chemicals
- PAC-1: Substance is not listed.
- PAC-2: Substance is not listed.
- PAC-3: Substance is not listed.

7 Handling and storage

· Handling:

- · Precautions for safe handling No special precautions are necessary if used correctly.
- · Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see section 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures:
- Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.
- Avoid contact with the skin.

Avoid contact with the eyes and skin.

• Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

• Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

(Contd. on page 4)

Printing date 07/03/2024

Reviewed on 07/03/2024

Trade name: Ceric Sulfate, Reagent Grade

(Contd. of page 3)

• *Material of gloves* The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

• **Penetration time of glove material** The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

• *Eye protection:* Not required.

• Body protection: Protective work clothing

9 Physical and chemical properties

· Information on basic physical and chemical properties	
• General Information	
· Appearance:	Crustallin a nourdan
Form: Color:	Crystalline powder
· Odor:	Yellow-orange Odorless
• Odor: • Odor threshold:	Not determined.
· pH-value:	Not applicable.
· Change in condition	
Melting point/Melting range:	32 °C (89.6 °F)
Boiling point/Boiling range:	212 °C (413.6 °F)
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Product is not flammable.
· Decomposition temperature:	Not determined.
· Ignition temperature:	Not determined.
• Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure:	Not applicable.
• Density at 20 °C (68 °F):	1.13 g/cm ³ (9.42985 lbs/gal)
· Relative density	Not determined.
· Vapor density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with	
Water:	Not determined.
· Partition coefficient (n-octanol/wate	e r): Not determined.
· Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
• Other information	No further relevant information available.

(Contd. on page 5)

Printing date 07/03/2024

Reviewed on 07/03/2024

Trade name: Ceric Sulfate, Reagent Grade

(Contd. of page 4)

10 Stability and reactivity

- *Reactivity* No further relevant information available.
- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- Acute toxicity:
- Primary irritant effect:
- on the skin: Irritant to skin and mucous membranes.
- on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:
- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer) Substance is not listed.
- · NTP (National Toxicology Program) Substance is not listed.
- · OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- Additional ecological information:
- · General notes:
- Water hazard class 1 (Self-assessment): slightly hazardous for water

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 further relevant information available.

13 Disposal considerations

- \cdot Waste treatment methods
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

(Contd. on page 6)

US

Printing date 07/03/2024

Reviewed on 07/03/2024

(Contd. of page 5)

Trade name: Ceric Sulfate, Reagent Grade

· Uncleaned packagings:

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

Transport information	
UN-Number DOT, ADN, IMDG, IATA	Not regulated
UN proper shipping name DOT, ADN, IMDG, IATA	Not regulated
Transport hazard class(es)	
DOT, ADN, IMDG, IATA Class	Not regulated
Packing group DOT, IMDG, IATA	Not regulated
Environmental hazards: Marine pollutant:	No
Special precautions for user	Not applicable.
Transport in bulk according to Annex MARPOL73/78 and the IBC Code	II of Not applicable.
Transport/Additional information:	
DOT Remarks:	Not Regulated
IMDG Remarks:	Not Regulated
IATA Remarks:	Not Regulated
UN "Model Regulation":	Not regulated

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
- · Sara
- · Section 355 (extremely hazardous substances): Substance is not listed.
- Section 313 (Specific toxic chemical listings): Substance is not listed.
- TSCA (Toxic Substances Control Act):
- · Hazardous Air Pollutants Substance is not listed.
- · Proposition 65
- · Chemicals known to cause cancer: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for females: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for males: Substance is not listed.
- · Chemicals known to cause developmental toxicity: Substance is not listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency) Substance is not listed.

(Contd. on page 7)

⁻ US

Printing date 07/03/2024

Reviewed on 07/03/2024

Trade name: Ceric Sulfate, Reagent Grade

(Contd. of page 6) · TLV (Threshold Limit Value) Substance is not listed. · NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed. • GHS label elements The substance is classified and labeled according to the Globally Harmonized System (GHS). · Hazard pictograms · Signal word Warning · Hazard statements Causes skin irritation. May cause respiratory irritation. · Precautionary statements Avoid breathing dust/fume/gas/mist/vapors/spray Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves. If on skin: Wash with plenty of water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. Specific treatment (see on this label). Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations. · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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.

- · Department issuing SDS: Environment protection department.
- · Contact: Date of Preparation / Last Revision: · Date of preparation / last revision Revision 1.2 07/03/2024: Reviewed SDS for accuracy. MH/STN Creation date for SDS 10-15-2015. STN 07/03/2024 / 1.1 · Abbreviations and acronyms: 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) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit

Skin Irritation 2: Skin corrosion/irritation – Category 2

(Contd. on page 8)

Printing date 07/03/2024

Reviewed on 07/03/2024

Trade name: Ceric Sulfate, Reagent Grade

Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3 · * **Data compared to the previous version altered.**

(Contd. of page 7)

US