

Safety Data Sheet

1. Chemical product and company identification

Product name : Cerium(IV) sulfate tetrahydrate

Company information

Name of manufacturer : KANTO CHEMICAL CO., INC.
Address : 2-1, Nihonbashi, Muromachi 2-Chome, Chuo-Ku, Tokyo, 103-0022, JP
Name of section : Business Administration Department, Reagent Division
Telephone number : +81-3-6214-1090
Facsimile number : +81-3-3241-1047
Mail address : BC32@kanto.co.jp
Reference No : 07168
Product numbers applied by the SDS : 07168, 08107

2. Hazards identification

GHS classification

Health hazards	Skin corrosion/irritation	Category 1B
	Serious eye damage/eye irritation	Category 1
Environmental hazards	Aquatic acute	Category 1
	Aquatic chronic	Category 1

Hazard
pictograms



Signal word : Danger

Hazard statements : Causes severe skin burns and eye damage
Very toxic to aquatic life
Very toxic to aquatic life with long lasting effects

Precautionary statements

Prevention : Do not breathe dust.
Wash hands, forearms and face thoroughly after handling.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.

Response : IF SWALLOWED: Rinse mouth. Do not induce vomiting.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water .
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor.
Collect spillage.



Storage : Store locked up.

Disposal : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

3. Composition/information on ingredients

Distinction of substance or mixture : Substance

Chemical name	Concentration (%)	Formula	TSCA	EC-No.	CAS RN
Cerium(IV) sulfate tetrahydrate	≥ 98	Ce(SO ₄) ₂ · 4H ₂ O	Not listed	-	10294-42-5

4. First aid measures

First aid measures

First-aid measures after inhalation : Remove the victim to fresh air, and make him blow his nose and gargle.

First-aid measures after skin contact : Wash the affected areas under running water, get medical treatment as soon as possible.

First-aid measures after eye contact : Wash the affected areas under running water for at least 15 minutes. Get medical treatment.

First-aid measures after ingestion : Rinse mouth with water. Give the victim one or two glasses of water or milk. Do not induce vomiting. Get medical treatment as soon as possible.

Personal Protection in First Aid and Measures : Rescuers should wear proper protective equipment like rubber gloves, goggles.

5. Fire fighting measures

Suitable extinguishing media : This product is noncombustible.

Unsuitable extinguishing media : None

Firefighting instructions : Move containers from fire area if it can be done without risk, if not possible, apply water from a safe distance to cool and protect surrounding area.

Personal protection (Emergency response) : Firefighters should wear protective equipment.

6. Accidental release measures

Personal Precautions, Protective Equipment and Emergency Procedures

General measures : Wear proper protective equipment and avoid contact with skin and inhalation of dust. Conduct operations from upwind and evacuate people downwind.

Environmental precautions

Environmental precautions : Attention should be given to avoid damage to the environment by flowing of spillage to rivers.

Methods and Equipment for Containment and Cleaning up

For containment : Sweep up the chemical and place in a chemical waste container.



7. Handling and storage

Handling

- Technical measures : Wear appropriate protective equipment to avoid contact with skin or inhalation of dust.
- Precautions for safe handling : Avoid formation of dust and aerosols.

Storage

- Storage conditions : Store in a dark, cool place and tightly closed.
- Material used in packaging/containers : Glass, polyethylene, polypropylene.

8. Exposure controls / Personal protection equipment

ACGIH TWA	Not established
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- Appropriate engineering controls : Install a local ventilation system in case of dusty condition.

Protective equipment

- Respiratory protection : If necessary, wear dust mask
- Hand protection : Impervious protective gloves
- Eye protection : Safety goggles
- Skin and body protection : Protective clothing, protective boots

9. Physical and chemical properties

- Physical state : Solid
- Color : Yellow - orange
- Odor : Odorless
- pH : ≤ 2 (10g/L aqueous solution)
- Melting point : No data available
- Freezing point : No data available
- Boiling point : No data available
- Flash point : No data available
- Auto-ignition temperature : No data available
- Decomposition temperature : ≥ 150 ° C (Becomes anhydrous)
- Flammability (solid, gas) : Non flammable
- Vapor pressure : No data available
- Relative density : No data available
- Density : 3.24 g/cm³ (20°C)
- Relative gas density : No data available
- Solubility : Organic solvents: Practically insoluble in ethanol.
Water: 207 g/L (20°C)
- Partition coefficient n-octanol/water (log Pow) : No data available
- Explosive limits (vol %) : No data available
- Viscosity, kinematic : No data available
- Particle characteristics : No data available



10. Stability and reactivity

Reactivity	: Has oxidative properties.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Stable under normal conditions of use.
Conditions to avoid	: Light, heat.
Incompatible materials	: Reducing agent.
Hazardous decomposition products	: Sulfur oxides. cerium oxide.

11. Toxicological information

Acute toxicity (oral)	: Classification not possible
Acute toxicity (dermal)	: Classification not possible
Acute toxicity (inhalation)	: No classification (gas) Classification not possible (vapor) Classification not possible (dust, mist)
Skin corrosion/irritation	: Causes severe skin burns The substance is a strong acid ($\text{pH} \leq 2$). Therefore, it was classified as category 1B.
Serious eye damage/irritation	: Causes serious eye damage The substance is corrosive to the skin. Therefore, it was classified as category 1.
Respiratory sensitization	: Classification not possible
Skin sensitization	: Classification not possible
Germ cell mutagenicity	: Classification not possible
Carcinogenicity	: Classification not possible
Reproductive toxicity	: Classification not possible
STOT-single exposure	: Classification not possible
STOT-repeated exposure	: Classification not possible
Aspiration hazard	: Classification not possible

12. Ecological information

Ecotoxicity

Aquatic acute	: Very toxic to aquatic life Raphidocelis subcapitata $\text{EC}_{50}=0.658\text{mg/L/72h}$
Aquatic chronic	: Very toxic to aquatic life with long lasting effects

Persistence and degradability

No additional information available

Bioaccumulative potential

No additional information available

Mobility in soil

No additional information available

Hazardous to the ozone layer

Ozone	: Classification not possible
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13. Disposal considerations

Ecology - waste materials	: Dilute with copious water and adjust the pH to neutral, then
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flush in drains. Insoluble substances are buried in a landfill site approved for the disposal of chemical and hazardous wastes. Or entrust approved waste disposal companies with the disposal.

Contaminated container and packaging : In case of disposal of empty bottles, dispose bottles after removing the content thoroughly.

14. Transport information

International Regulations

Transport by sea(IMDG)

UN-No. (IMDG) : 1759
Proper Shipping Name (IMDG) : CORROSIVE SOLID, N.O.S.
Packing group (IMDG) : II
Transport hazard class(es) : 8

(IMDG)

Air transport(IATA)

UN-No. (IATA) : 1759
Proper Shipping Name (IATA) : Corrosive solid, n.o.s.
Packing group (IATA) : II
Transport hazard class(es) : 8

(IATA)

Marine pollutant : Applicable

MFAG-No : 154

15. Regulatory information

Regulatory information with regard to this substance in your country or region should be examined by your own responsibility.

16. Other information

Data sources : Encyclopaedia Chimica, Kyoritsu Shuppan Co, Ltd. (1963) .
ECHA (European Chemicals Agency).
NITE Chemical Risk Information Platform (NITE-CHRIP), National Institute of Technology and Evaluation.

The information contained herein is based on several references and the present state of our knowledge. However the SDS does not always cover all information about the product, handle the product carefully. The information is intended to ordinary usage, in case of particular handlings, conduct appropriate safety measurements. The information herein is only provision of information, and it does not represent a guarantee the properties of the product. The Safety Data Sheet(SDS) is prepared based on JIS Z7253.

