



INTATRADE
MATERIAL SAFETY DATA SHEET
according to 1907/2006/EC, Article 31

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1. IDENTIFICATION OF SUBSTANCE AND OF THE COMPANY

Product name: **Cerium(IV) sulfate tetrahydrate**
Product code: EO05488
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2. HAZARDS IDENTIFICATION

Hazard designation: C Corrosive
O Oxidising

Information pertaining to
particular dangers for man
and environment

R 8 Contact with combustible material may cause fire.
R 34 Causes burns.



Danger

GHS label elements

H314 - Causes severe skin burns and eye damage.



Warning

Prevention:

H272 - May intensify fire; oxidiser.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Response:

P221 Take any precaution to avoid mixing with combustibles.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

Storage:

P405 Store locked up.

Disposal:

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Designation: Cerium(IV) sulfate tetrahydrate
CAS-No.: 10294-42-5
EC-No.: 237-029-5

4. FIRST AID MEASURES

After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After skin contact	Seek immediate medical advice. Instantly wash with water and soap and rinse thoroughly.
After eye contact	Seek immediate medical advice. Rinse opened eye for several minutes under running water. Then consult doctor.
After swallowing	Seek immediate medical advice.

5. FIRE FIGHTING MEASURES

Suitable extinguishing agents	Use fire fighting measures that suit the environment.
Special hazards caused by the material, its products of combustion or flue gases:	Can be released in case of fire: Sulphur oxides (SO _x) Metal oxide This substance is an oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition.
Protective equipment:	Wear self-contained breathing apparatus. Wear full protective suit.

6. ACCIDENTAL RELEASE MEASURES

Person-related safety precautions:	Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation
Measures for environmental protection:	Do not allow material to be released to the environment without proper governmental permits.
Measures for cleaning/collecting:	Collect mechanically.
Additional information:	See Section 7 for information on safe handling See section 8 for information on personal protection equipment. See Section 13 for information on disposal.

7. HANDLING AND STORAGE

Handling	
Information for safe handling:	Keep containers tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation/exhaustion at the workplace.
Information about protection against explosions and fires:	Substance/product can reduce the ignition temperature of flammable substances. This substance is an oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition.
Storage	
Requirements to be met by storerooms and containers:	No special requirements.
Information about storage in one common storage facility:	Store away from flammable substances. Store away from reducing agents.
Further information about storage conditions:	Keep container tightly sealed. Store in cool, dry conditions in well sealed containers.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Additional information about design of technical systems:	Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.
Components with critical values that require monitoring at the workplace:	Not required.
Additional information:	No data
Personal protective equipment	
General protective and hygienic measures	The usual precautionary measures should be adhered to in handling the chemicals. Keep away from foodstuffs, beverages and food. Instantly remove any soiled and impregnated garments.

Breathing equipment:	Wash hands during breaks and at the end of the work.
Eye protection:	Use breathing protection with high concentrations.
Body protection:	Safety glasses
	Protective work clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES:

General Information

Form:	Crystalline powder
Colour:	Yellow
Smell:	Odourless
Change in condition	
Melting point/Melting range:	195°C (dec)
Boiling point/Boiling range:	Not determined
Sublimation temperature / start:	Not determined
Flash point:	Not applicable
Inflammability (solid, gaseous)	Contact with combustible material may cause fire.
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Critical values for explosion:	
Lower:	Not determined
Upper:	Not determined
Steam pressure:	Not determined
Density at 20°C	3.01 g/cm ³
Solubility in / Miscibility with Water:	Soluble

10. STABILITY AND REACTIVITY

Thermal decomposition / conditions to be avoided:	No decomposition if used and stored according to specifications.
Materials to be avoided:	Reducing agents, easily oxidized materials
Dangerous reactions:	Reacts with reducing agents
	Reacts with flammable substances
	Dangerous products of decomposition: Sulphur oxides (SO _x)
	Metal oxide

11. TOXICOLOGICAL INFORMATION

Acute toxicity:	
Primary irritant effect:	
on the skin:	Corrosive effect on skin and mucous membranes.
on the eye:	Strong corrosive effect.
Sensitization:	No sensitizing effect known.
Other information (about experimental toxicology):	Reproductive effects have been observed on tests with laboratory animals.
Additional toxicological information:	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
	Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
	No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

12. ECOLOGICAL INFORMATION:

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 bodies or sewage system.
	Do not allow material to be released to the environment without proper governmental permits.

13. DISPOSAL CONSIDERATIONS

Product:

Recommendation Consult state, local or national regulations for proper disposal.
Hand over to disposers of hazardous waste.
Must be specially treated under adherence to official regulations.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.
Recommended cleaning agent: Water, if necessary with cleaning agent.

14. TRANSPORT INFORMATION

Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)

ADR/RID-GGVS/E Class: 5.1 (OC2) Oxidising substances.
Kemler Number: 58
UN-Number: 3085
Packaging group: III
Label 5.1+8
Designation of goods: 3085 OXIDIZING SOLID, CORROSIVE, N.O.S. (Cerium(IV) sulfate hydrate)
Limited quantities (LQ) LQ12
Transport category 3
Tunnel restriction code E
Maritime transport IMDG/GGVSea:
IMDG/GGVSea Class: 5.1
UN Number: 3085
Label 5.1+8
Packaging group: III
Marine pollutant: No
Correct technical name: OXIDIZING SOLID, CORROSIVE, N.O.S. (Cerium(IV) sulfate hydrate)
Air transport ICAO-TI and IATA-DGR:
ICAO/IATA Class: 5.1
UN/ID Number: 3085
Label 5.1+8
Packaging group: III
Correct technical name: OXIDIZING SOLID, CORROSIVE, N.O.S. (Cerium(IV) sulfate hydrate)
UN "Model Regulation": UN3085, OXIDIZING SOLID, CORROSIVE, N.O.S., 5.1 (8), III

15. REGULATORY INFORMATION

Designation according to EC guidelines:

Code letter and hazard C Corrosive
designation of product: O Oxidising
Risk phrases: 8 Contact with combustible material may cause fire.
34 Causes burns.

Safety phrases: 17 Keep away from combustible material.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

National regulations

Information about limitation of use: Employment restrictions concerning young persons must be observed.
For use only by technically qualified individuals.

Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

16. OTHER INFORMATION:

Warranty

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Intatrade Chemicals GmbH shall not be held liable for any damage resulting from handling or from contact with the above product.