

**GELEST, INC.**

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MATERIAL SAFETY  
DATA SHEET

EMERGENCY TELEPHONE  
CHEMTREC: 1-800-424-9300

NAME USED ON LABEL: **CERIUM IV TETRAMETHYLHEPTANEDIONATE - AKC191**

CHEMICAL NAME: CERIUM IV 2,2,6,6-TETRAMETHYL-3,5-HEPTANEDIONATE

SYNONYMS: TETRAKIS(2,2,6,6-TETRAMETHYLHEPTANEDIONATO)CERIUM

CHEMICAL FAMILY: RARE EARTH COMPOUND

FORMULA: C<sub>44</sub>H<sub>76</sub>O<sub>8</sub>Ce

HMIS CODES HEALTH: 2 FLAMMABILITY: 1 REACTIVITY: 0

**INGREDIENTS**

| IDENTITY                                    | CAS NO.    | %   | TLV             | OSHA PEL |
|---|------------|-----|-----------------|----------|
| CERIUM IV 2,2,6,6-TETRAMETHYLHEPTANEDIONATE | 18960-54-8 | >95 | not established |          |

**PHYSICAL DATA**

Boiling Point: 140°C@0.05mm-sub.  
Specific Gravity: not determined  
Vapor Density: NA  
% volatiles: <3  
Molecular Weight: 873.20  
Appearance & Color: Red powder

Melting Point: 250°C-decomposes  
Vapor Pressure, 25°: <0.01mm  
Solubility in water: insoluble  
Evaporation rate: NA  
Other: NA

**FIRE & EXPLOSION DATA**

Flash Point, COC: NA Autoignition Temp.: not determined  
Flammability Limits- LEL: NA UEL: NA

Extinguishing Media: Water spray, foam, carbon dioxide, dry chemical.

Special Fire Fighting Procedures: Avoid eye and skin contact. Do not breathe fumes or inhale vapors.

Unusual Fire and Explosion Hazards: Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

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## ENVIRONMENTAL INFORMATION

Spill response: Sweep material and transfer to a suitable container for disposal.

Recommended Disposal: Dispose of as solid waste. Follow all chemical pollution control regulations.

## HEALTH HAZARD DATA

Compounds of cerium are generally of low toxicity. Workers exposed to cerium compounds have experienced sensitivity to heat, itching and skin lesions. Large doses to experimental animals have caused writhing, ataxia, labored respiration, sedation, hypotension and death by cardiovascular collapse. The toxicity of cerium IV tetramethylheptanedionate has not been studied. The following guidelines apply.

Eye Contact: May cause immediate or delayed severe eye irritation.

Skin contact: May produce irritation or contact dermatitis. Prompt and thorough washing with soap and water will reduce or eliminate potential dermal effects.

Inhalation: Inhalation of dust or particulates may irritate the respiratory tract.

Oral Toxicity: not determined

Chronic Toxicity: not determined

### SUGGESTED FIRST AID

**EYES:** In case of contact, immediately flush eyes with flowing water for at least 15 minutes. Get medical attention.

**SKIN:** Flush with water, then wash with soap and water.

**INHALATION:** Move exposed individual to fresh air. Administer oxygen if needed. Call a physician.

**INGESTION:** Never give fluids or induce vomiting if patient is unconscious or having convulsions. Get medical attention.

## REACTIVITY DATA

Stability: Stable

Conditions to avoid: Material decomposes slowly in contact with air by reaction with water and carbon dioxide.

Hazardous decomposition products: Organic acid vapors and cerium oxide fumes.

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## SPECIAL PROTECTION INFORMATION

Ventilation: Local exhaust is required. Mechanical is recommended.

Respiratory Protection: If exposure exceeds TLV, NIOSH approved dust and mist respirator.

Eye and Face Protection: Chemical worker's goggles. Do not wear contact lenses.

Other Clothing and Equipment: Rubber, neoprene or nitrile gloves. An eyewash and emergency shower should be available. Launder clothing before reuse.

## OTHER PRECAUTIONS

For research use only.

Storage and Handling: Store in sealed containers.

## TRANSPORTATION

DOT SHIPPING NAME: None required

DOT HAZARD CLASS: None required

DOT LABEL: None required

DOT ID No: None required

Prepared by safety and environmental affairs

ISSUE DATE AKC191: 2/27/09

SUPERSEDES: 9/30/02

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