acc. to OSHA and ANSI

Printing date 05/01/2009

## 1 Identification of substance:

Product details:

Product name: Lutetium nitrate

Stock number: 11258

# Manufacturer/Supplier:

Alfa Aesar, A Johnson Matthey Company Johnson Matthey Catalog Company, Inc. 30 Bond Street Ward Hill, MA 01835-8099 Emergency Phone: (978) 521-6300 CHEMTREC: (800) 424-9300 Web Site: www.alfa.com

## Information Department: Health, Safety and Environmental Department

**Emergency information:** During normal hours the Health, Safety and Environmental Department. After normal hours call Chemtrec at (800) 424-9300.

## 2 Composition/Data on components:

Chemical characterization: Description: (CAS#) Lutetium nitrate, hydrate (CAS# 10099-67-9); 100% Identification number(s): EINECS Number: 233-241-7

## 3 Hazards identification

## Hazard description:



Xi Irritant O Oxidizing

Information pertaining to particular dangers for man and environment Contact with combustible material may cause fire. R 8 R 36/37/38 Irritating to eyes, respiratory system and skin. Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System) HEALTH 1 Health (acute effects) = 1 Flammability = 0FIRE 0 Reactivity = 1REACTIVITY 1 GHS label elements Danger 2.14/2 - May intensify fire; oxidizer. Warning 3.2/2 - Causes skin irritation. 3.3/2A - Causes serious eye irritation. 3.8/3 - May cause respiratory irritation. Prevention: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep/Store away from clothing/combustible materials. Take any precaution to avoid mixing with combustibles. Avoid breathing dust/fume/gas/mist/vapours/spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. **Response:** IF ON SKIN: Wash with plenty of soap and water. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Call a POISON CENTER or doctor/physician if you feel unwell.

Reviewed on 10/12/2006

(Contd. on page 2)

acc. to OSHA and ANSI

Printing date 05/01/2009

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## Product name: Lutetium nitrate

(Contd. of page 1) Specific treatment (see label). If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use for extinction: CO2, powder or water spray. **Storage:** Store in a well-ventilated place. Keep container tightly closed. Store locked up. **Disposal:** Dispose of contents/container in accordance with local/regional/national/international regulations.

# 4 First aid measures

After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Seek immediate medical advice. After skin contact Immediately wash with water and soap and rinse thoroughly. Seek immediate medical advice. After eye contact Rinse opened eye for several minutes under running water. Then consult a doctor. After swallowing Seek immediate medical advice.

#### 5 Fire fighting measures

Suitable extinguishing agents Product is not flammable. Use fire fighting measures that suit the surrounding fire. Special hazards caused by the material, its products of combustion or resulting gases: This substance is an oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition. Protective equipment: Wear self-contained respirator

Wear self-contained respirator. Wear fully protective impervious 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: Ensure adequate ventilation. Additional information: 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 Information for safe handling: Keep container tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation 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 receptacles: 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.

(Contd. on page 3)

USA

acc. to OSHA and ANSI

Printing date 05/01/2009

### Product name: Lutetium nitrate

Reviewed on 10/12/2006

(Contd. of page 2)

### 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 limit 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 for handling chemicals should be followed. Keep away from foodstuffs, beverages and feed. Remove all soiled and contaminated clothing immediately. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin. Breathing equipment: Use suitable respirator when high concentrations are present. Protection of hands: Impervious gloves Eye protection: Safety glasses Body protection: Protective work clothing.

#### 9 Physical and chemical properties: General Information Form: Color: Crystalline aggregrates White

Color:	White
Odor:	Odorless
Change in condition	
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	Not determined
Sublimation temperature / start:	Not determined
Flash point:	Not applicable
Flammability (solid, gaseous)	Contact with combustible material may cause fire.
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Explosion limits:	
Lower:	Not determined
Upper:	Not determined
Vapor pressure:	Not determined
Density:	Not determined
Solubility in / Miscibility with	
Water:	Soluble

#### 10 Stability and reactivity

Thermal decomposition / conditions to be avoided: Decomposition will not occur 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: Nitrogen oxides

#### 11 Toxicological information

Acute toxicity: Primary irritant effect: on the skin: Irritant to skin and mucous membranes. on the eye: Irritating effect. Sensitization: No sensitizing effects known. Subacute to chronic toxicity: Lanthanons can cause delayed blood clotting leading to hemorrhages. Exposure may also lead to sensitivity to heat, itching, increased awareness of odor and taste, and liver damage. Small doses of nitrates may cause weakness, general depression, headache and mental impairment. Larger doses may cause dizziness, abdominal cramps, vomiting, bloody diarrhea, convulsions and collapse.

(Contd. on page 4)

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Product name: Lutetium nitrate

Const. of page U      To the best of our knowledge the acute and chronic toxicity of this substance is not fully     known.     No classification data on carcinogenic properties of this material is available from the EFA,     IARC, NTY, COMA or ACOUL.      Ecological information:     General notes:         on on allow material to be released to the environment without proper governmental permits.      Disposal consult state, local or national regulations to ensure proper disposal.     Ducleaned packaging:     Recommendation Consult state, local or national regulations to ensure proper disposal.     Ducleaned packaging:     Recommendation Consult state, local or national regulations to ensure proper disposal.     Ducleaned packaging:     Recommendation Consult state, local or national regulations to ensure proper disposal.     Ducleaned packaging:     Recommendation Consult state, local or national regulations to ensure proper disposal.     Ducleaned eleasis:     Recommendation Consult state, local or national regulations to ensure proper disposal.     Ducleaned eleasis:     Recommendation:     Disposal must be made according to official regulations.     Recommendation:     Disposal must be made according to official regulations.     Recommendation:     Disposal must be made according to official regulations.     Recommendation:     Disposal must be made according to official regulations.     Recommendation:     Disposal must be made according to official regulations.     Recommendation:     Disposal must be made according to official regulations.     Recommendation:     Disposal must be made according to official regulations.     Recommendation:     Disposal must be made according to official regulations.     Recommendation:     Disposal consider:     Disposal consider:     Disposal consider:     Disposal consider:     Disposal     Disposal consider:     Disposal     Disposal consider:     Disposal     Disposal     Disposal     Disposal     Disposal     Disposal     Disposal     Disposal     Disposal     D	Product name: Lutetium nitrate			
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UN/ID Number:         1477           Label         5.1	61			
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<b>Label</b> 5.1				
	UN/ID NUMBER:			
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(Contd. on page 5) USA

acc. to OSHA and ANSI

Printing date 05/01/2009

Reviewed on 10/12/2006

Product name: Lutetium nitrate

	(Contd. of page 4)
Proper shipping name: NITRATES, INORGANIC, N.O.S.	
UN "Model Regulation": UN1477, NITRATES, INORGANIC, N.O.S., 5.1, III	

### 15 Regulations

Product related hazard informations:

Hazard symbols:

- Xi Irritant
- 0 Oxidizing

#### Risk phrases:

Contact with combustible material may cause fire. 8

36/37/38 Irritating to eyes, respiratory system and skin.

#### 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.

#### National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory. All components of this product are listed on the Canadian Non-Domestic Substances List (NDSL)

Information about limitation of use: For use only by technically qualified individuals.

#### 16 Other information:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing MSDS: Health, Safety and Environmental Department. Contact: Zachariah Holt Abbreviations and acronyms: ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning KID: Regrement International Concernant le transport des marchandises dangereuses par chemin of the International Transport of Dangerous Goods by Xail) IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA) ICAO: International Civil Aviation Organization ICAO-T: Technical Instructions by the "International Civil Aviation Organization" (ICAO) ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO) GHS: Globally Harmonized System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) HMIS: Hazardous Materials Identification System (USA)

USA