

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Europium / dysprosium doped strontium aluminate

Revision date: 11.10.2016

Product code:

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#### SECTION 1: Identification of the substance/mixture and of the company/undertaking

##### 1.1. Product identifier

Europium / dysprosium doped strontium aluminate

CAS No: 12004-37-4

EC No: 234-455-3

##### 1.2. Relevant identified uses of the substance or mixture and uses advised against

###### Use of the substance/mixture

Industry

Private households (= general public).

###### Uses advised against

any non-intended use.

##### 1.3. Details of the supplier of the safety data sheet

Company name: Dr. Falko Böttger-Hiller &amp; Lars Ehrhardt Leuchtstoffe GbR

Street: Kornmarkt 6

Place: D-4600 Altenburg

Telephone: +49 (0)151 55687366

e-mail: info@premium-leuchtstoffe.de

Responsible Department: Dr. Gans-Eichler

Chemieberatung GmbH

Raesfeldstr. 22

D-48149 Münster

e-mail: info@tge-consult.de

Tel.: +49 (0)251/924520-60

www.tge-consult.de

##### 1.4. Emergency telephone number:

+49 (0)151 55687366 This number is serviced during office hours.

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Regulation (EC) No. 1272/2008

This substance is not classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

##### 2.2. Label elements

###### Additional advice on labelling

Labelling according to Regulation (EC) No. 1272/2008 [CLP]: none

##### 2.3. Other hazards

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

No risks worthy of mention. Please observe the information on the safety data sheet at all times.

#### SECTION 3: Composition/information on ingredients

##### 3.1. Substances

Sum formula: SrAl<sub>2</sub>O<sub>4</sub>

Molecular weight: 205,58

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#### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
12004-37-4	dialuminium strontium tetraoxide			95 - < 100 %
	234-455-3			

Full text of H and EUH statements: see section 16.

#### Further Information

Product does not contain listed SVHC substances > 0,1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH)

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

##### After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract irritation, consult a physician.

##### After contact with skin

Gently wash with plenty of soap and water. In case of skin irritation, seek medical treatment.

##### After contact with eyes

Rinse cautiously with water for several minutes. In case of troubles or persistent symptoms, consult an ophthalmologist.

##### After ingestion

Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. In all cases of doubt, or when symptoms persist, seek medical advice.

#### 4.2. Most important symptoms and effects, both acute and delayed

No information available.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

##### Suitable extinguishing media

Carbon dioxide (CO<sub>2</sub>). Dry extinguishing powder. alcohol resistant foam. Atomized water.

##### Unsuitable extinguishing media

High power water jet.

#### 5.2. Special hazards arising from the substance or mixture

Can be released in case of fire: Carbon monoxide, Carbon dioxide (CO<sub>2</sub>).

#### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

#### Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Co-ordinate fire-fighting measures to the fire surroundings.

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#### SECTION 6: Accidental release measures

##### **6.1. Personal precautions, protective equipment and emergency procedures**

- Avoid dust formation.
- Do not breathe dust.
- Wear personal protection equipment (refer to section 8).

##### **6.2. Environmental precautions**

- Discharge into the environment must be avoided.

##### **6.3. Methods and material for containment and cleaning up**

- Take up mechanically.
- Treat the recovered material as prescribed in the section on waste disposal.
- Clean contaminated articles and floor according to the environmental legislation.

##### **6.4. Reference to other sections**

- Safe handling: see section 7
- Personal protection equipment: see section 8
- Disposal: see section 13

#### SECTION 7: Handling and storage

##### **7.1. Precautions for safe handling**

###### **Advice on safe handling**

- Wear personal protection equipment (refer to section 8).

###### **Advice on protection against fire and explosion**

- Usual measures for fire prevention. Dust clouds may present an explosion hazard.

###### **Further information on handling**

- Avoid generation of dust.
- General protection and hygiene measures: refer to chapter 8

##### **7.2. Conditions for safe storage, including any incompatibilities**

###### **Requirements for storage rooms and vessels**

- Keep container tightly closed in a cool, well-ventilated place.

###### **Advice on storage compatibility**

- Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Radioactive substances. Infectious substances. Food and feedingstuffs.

###### **Further information on storage conditions**

- Keep the packing dry and well sealed to prevent contamination and absorption of humidity.
- Shelf Life (months): > 24
- Protect against: Light. UV-radiation/sunlight. heat. moisture.

##### **7.3. Specific end use(s)**

- refer to chapter 1.

#### SECTION 8: Exposure controls/personal protection

##### **8.1. Control parameters**

##### **8.2. Exposure controls**

###### **Appropriate engineering controls**

- Dust should be exhausted directly at the point of origin.

###### **Protective and hygiene measures**

- Always close containers tightly after the removal of product. When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work.

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#### Eye/face protection

Dust protection goggles.

#### Hand protection

In case of prolonged or frequently repeated skin contact:

Wear suitable gloves.

Suitable material:

FKM (fluororubber). - Thickness of glove material: 0,4 mm

Breakthrough time  $\geq$  8 h

Butyl rubber. - Thickness of glove material: 0,5 mm

Breakthrough time  $\geq$  8 h

CR (polychloroprenes, Chloroprene rubber). - Thickness of glove material: 0,5 mm

Breakthrough time  $\geq$  8 h

NBR (Nitrile rubber). - Thickness of glove material: 0,35 mm

Breakthrough time  $\geq$  8 h

PVC (Polyvinyl chloride). - Thickness of glove material: 0,5 mm

Breakthrough time  $\geq$  8 h

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Before using check leak tightness / impermeability. In the case of wanting to use the gloves again, clean them before taking off and air them well.

#### Skin protection

Suitable protective clothing: Protective clothing.

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.

#### Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at: exceeding exposure limit values

Suitable respiratory protective equipment: particulates filter device (DIN EN 143). Type : P2/P3

Half-face mask or quarter facepiece: maximum use concentration for substances with exposure limits: P1 filter: up to a max. of 4 times the exposure limit. P2 filter: up to a max. of 10 times the exposure limit. P3 filter: up to a max. of 30 times the expo. Full-face mask or mouthpiece with particulate filter: maximum use concentration for substances with exposure limits: P1 filter: up to a max. of 4 times the exposure limit. P2 filter: up to a max. of 15 times the exposure limit. P3 filter: up to a max. of

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

#### Environmental exposure controls

No special precautionary measures are necessary.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state:	solid
Colour:	light yellow
Odour:	odourless

pH-Value:	not determined
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#### Changes in the physical state

Melting point:	not determined
Initial boiling point and boiling range:	not determined
Sublimation point:	not determined
Softening point:	not determined

#### Test method

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Pour point: not determined

Flash point: not determined

Sustaining combustion: Not sustaining combustion

**Explosive properties**

none

Lower explosion limits: not determined

Upper explosion limits: not determined

Ignition temperature: not determined

**Auto-ignition temperature**

Solid:

not determined

Decomposition temperature: not determined

**Oxidizing properties**

none

Vapour pressure: not determined

Density: 3,6 g/cm<sup>3</sup>

Bulk density: not determined

Water solubility: insoluble

**Solubility in other solvents**

insoluble

Partition coefficient: not determined

Viscosity / dynamic: not determined

Viscosity / kinematic: not determined

Flow time: not determined

Vapour density: not determined

Solvent content: 0%

**9.2. Other information**

Solid content: 100%

**SECTION 10: Stability and reactivity****10.1. Reactivity**

No information available.

**10.2. Chemical stability**

The product is chemically stable under recommended conditions of storage, use and temperature.

**10.3. Possibility of hazardous reactions**

No information available.

**10.4. Conditions to avoid**

Protect against: UV-radiation/sunlight. heat.

**10.5. Incompatible materials**

Materials to avoid: Oxidizing agents, strong. Reducing agents, strong.

**10.6. Hazardous decomposition products**

No information available.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects**

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#### Toxicokinetics, metabolism and distribution

No data available.

#### Acute toxicity

Based on available data, the classification criteria are not met.  
No data available.

CAS No	Chemical name			
	Exposure route	Dose	Species	Source
12004-37-4	dialuminium strontium tetraoxide			
	oral	LD50 >2000 (Al <sub>2</sub> O <sub>3</sub> ) mg/kg	Rat	READ ACROSS
	inhalative (4 h) aerosol	LC50 >5,09 (Al <sub>2</sub> O <sub>3</sub> ) mg/l		READ ACROSS

#### Irritation and corrosivity

Based on available data, the classification criteria are not met.  
No data available.

#### Sensitising effects

Based on available data, the classification criteria are not met.  
No data available.

#### Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.  
No data available.

#### STOT-single exposure

Based on available data, the classification criteria are not met.  
No data available.

#### STOT-repeated exposure

Based on available data, the classification criteria are not met.  
No data available.

#### Aspiration hazard

Based on available data, the classification criteria are not met.  
No data available.

#### Specific effects in experiment on an animal

No data available.

### SECTION 12: Ecological information

#### 12.1. Toxicity

No data available.

#### 12.2. Persistence and degradability

Poorly watersoluble, inorganic product. Can be mechanically precipitated to a large extent in biological sewage plants. The methods for determining the biological degradability are not applicable to inorganic substances. No data available.

#### 12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

#### 12.4. Mobility in soil

No data available.

#### 12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

#### 12.6. Other adverse effects

No data available.

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#### Further information

Do not allow to enter into surface water or drains.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Advice on disposal

Observe in addition any national regulations! Consult the local waste disposal expert about waste disposal.

Non-contaminated packages may be recycled.

According to EAKV, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

Control report for waste code/ waste marking according to EAKV:

##### Waste disposal number of waste from residues/unused products

060316 WASTES FROM INORGANIC CHEMICAL PROCESSES; wastes from the MFSU of salts and their solutions and metallic oxides; metallic oxides other than those mentioned in 06 03 15

##### Waste disposal number of used product

060316 WASTES FROM INORGANIC CHEMICAL PROCESSES; wastes from the MFSU of salts and their solutions and metallic oxides; metallic oxides other than those mentioned in 06 03 15

##### Waste disposal number of contaminated packaging

150106 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); mixed packaging

##### Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

### SECTION 14: Transport information

#### Land transport (ADR/RID)

**14.1. UN number:** Not restricted**14.2. UN proper shipping name:** Not restricted**14.3. Transport hazard class(es):** Not restricted**14.4. Packing group:** Not restricted

#### Inland waterways transport (ADN)

**14.1. UN number:** Not restricted**14.2. UN proper shipping name:** Not restricted**14.3. Transport hazard class(es):** Not restricted**14.4. Packing group:** Not restricted

#### Marine transport (IMDG)

**14.1. UN number:** Not restricted**14.2. UN proper shipping name:** Not restricted**14.3. Transport hazard class(es):** Not restricted**14.4. Packing group:** Not restricted

#### Air transport (ICAO-TI/IATA-DGR)

**14.1. UN number:** Not restricted**14.2. UN proper shipping name:** Not restricted**14.3. Transport hazard class(es):** Not restricted**14.4. Packing group:** Not restricted

#### 14.5. Environmental hazards

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ENVIRONMENTALLY HAZARDOUS: no

#### **14.6. Special precautions for user**

refer to chapter 6-8

#### **14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

not relevant

### SECTION 15: Regulatory information

#### **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

##### **EU regulatory information**

2010/75/EU (VOC): 0%  
2004/42/EC (VOC): 0 g/L  
Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)  
(SEVESO III):

##### **Additional information**

The substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].  
REACH 1907/2006 Appendix XVII: not relevant

##### **National regulatory information**

Water contaminating class (D): - - not water contaminating

#### **15.2. Chemical safety assessment**

For this substance a chemical safety assessment has not been carried out.

### SECTION 16: Other information

#### **Changes**

Rev. 1.0; 11.10.2016 Initial release

#### **Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route  
CAS Chemical Abstracts Service  
DNEL: Derived No Effect Level  
IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER  
International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)  
ICAO: International Civil Aviation Organization  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)  
LOAEL: Lowest observed adverse effect level  
LOAEC: Lowest observed adverse effect concentration  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
NOAEL: No observed adverse effect level  
NOAEC: No observed adverse effect level  
NTP: National Toxicology Program  
N/A: not applicable  
OSHA: Concerning the International Transport of Dangerous Goods by Rail)  
PNEC: predicted no effect concentration  
PBT: Persistent bioaccumulative toxic  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail )



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SARA: Superfund Amendments and Reauthorization Act  
SVHC: substance of very high concern  
TRGS Technische Regeln für Gefahrstoffe  
TSCA: Toxic Substances Control Act  
VOC: Volatile Organic Compounds  
VwVwS: Verwaltungsvorschrift wassergefährdender Stoffe  
WGK: Wassergefährdungsklasse

#### Further Information

Classification according EC regulation 1272/2008 (CLP): - Classification procedure:  
Health hazards: Calculation method.  
Environmental hazards: Calculation method.  
Physical hazards: On basis of test data. and / or calculated and / or estimated.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.