

CANON OPTRON INC.  
 SDS Number: EL01  
 Product Name: LaF3

# SAFETY DATA SHEET

rev. 6.5 Date of Issue 2016/2/17  
 Revised Date 2018/6/6

## SECTION 1 Chemicals and company identification

Chemical identifier	LaF3
SDS number	EL01
Company name	CANON OPTRON INC.
Address	1744-1, Kanakubo, Yuki-shi, Ibaraki-ken, 307-0015 Japan
Section name	Internal Control Promotion Div.
Telephone number	+81-296-21-3700 (Sales Dept.)
Fax number	+81-296-21-3770
Emergency telephone number	+81-296-21-3700 (Sales Dept.)
Recommended uses and restrictions on use	Vacuum deposition material

## SECTION 2 Hazards identification

GHS Classification (A classification by JIS Z 7252 "classification methods such as chemical substances based on GHS")

No data available

### Label element

Pictogram (Symbol)	No data available
Signal word	No data available
Hazard statement	No data available

### Precautionary statement

**【Safety measures】** Obtain special instructions before use.  
 Wash hands thoroughly after handling.  
 Do not eat, drink or smoke when using this product.  
 Do not breathe dust/fume/gas/mist/vapours/spray.

### 【First-aid measures】

If swallowed:

Call a poison center or doctor/physician if you feel unwell.  
 Rinse mouth.

If in eyes:

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 Immediately call poison center or doctor/physician

### 【Storage】

Store in a well-ventilated place, keep container tightly closed.  
 Store locked up.

### 【Disposal】

Dispose of contents/container in accordance with national regulations.

## SECTION 3 Composition and information ingredients

Substance/Mixture	Substance
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CANON OPTRON INC.

SDS Number: EL01  
Product Name: LaF3

## SAFETY DATA SHEET

rev. 6.5 Date of Issue 2016/2/17  
Revised Date 2018/6/6

Chemical name or generic name	<i>Lanthanum fluoride</i>
Chemical formula	<i>LaF3</i>
CAS No.	<i>13709-38-1</i>
Concentration or concentration range	99.9%<
TSCA Inventory	<i>Lanthanum fluoride (LaF3)</i>
EINECS number	<i>237-252-8</i>
Radioactive information	Radioactive substances are not used as the material. Therefore, there is no reason that ionizing radiation would be generated.

## SECTION 4 First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin	Remove/Take off immediately all contaminated clothing. Wash with a large amount of water and soap for 15 minutes or more. When symptoms such as blistering or pain appear, undergo a diagnosis by a physician according to the necessity.
Eye	Immediately wash your eyes with pure water for 15 minutes or more. If you are using contact lenses, remove and wash unless they are attached. Be certain to undergo a diagnosis by a physician.
Ingestion	Rinse your mouth out immediately. Be certain to undergo a diagnosis by a physician.
Protection of first aiders	Rescuers should wear protective equipment such as protective eyewear and protective gloves.

## SECTION 5 Fire-fighting measures

Extinguishing media	This product itself is not flammable.
Extinguishing media are unsuitable	No data
Specific hazards	No data
Specific extinguishing methods	In the case of a fire in the periphery, the portable container is quickly moved to a safe place.
Protection of fire-fighters	Wear suitable protective equipment (gloves, glasses and a mask) in fire-fighting.

## SECTION 6 Accidental release measures

Personal precautions, protective equipment, and emergency procedures	Protection equipment (specified as those in which the properties of the product are suitable) worn during operation so that airborne droplets, etc., do not adhere to the skin and dusts and gases are not absorbed.
Environmental precautions	The leakage may not directly flow into rivers or sewage.
Methods and materials for containment and methods and materials for cleaning up	The leaked material is scooped up, or swept up and gathered to be recovered in a paper bag or a drum. After recovery, a small amount of the residue is absorbed in sediment, sawdust, etc.

CANON OPTRON INC.  
 SDS Number: EL01  
 Product Name: LaF3

# SAFETY DATA SHEET

rev. 6.5 Date of Issue 2016/2/17  
 Revised Date 2018/6/6

Secondary disaster prevention measures No data

## SECTION 7 Handling and storage precautions

### Handling

Technical measures After handling wearing suitable protection equipment such as protective glasses and protective gloves, your hands and face should be thoroughly washed, and gargling should be performed.

Safety handling precautions Handling work must be practiced in a room where there is a local or total ventilation facility.

### Storage

Safe storage conditions Seal and store the container in well-ventilated areas.

Safety packaging material No data

## SECTION 8 Exposure controls and personal protection

### LaF3

### Permissible concentration

#### ACGIH

TWA 2.5 mg/m<sup>3</sup> (As F) (2009 version)

### Engineering controls

Use sealed devices, equipment, or a local exhaust ventilation as much as possible.

### Personal protective equipment

Respiratory protection Dustproof mask

Hand protection Protective gloves

Eye protection Dustproof glasses

Skin and body protection Protective clothing

## SECTION 9 Physical and chemical properties

### Appearance

Physical state Solid

Form Pellets, granular

Colour White

Odour None

### LaF3

#### pH

No data

#### Melting point/Freezing point

1493°C

#### Boiling point/Initial boiling point and boiling range

Analysis

#### Flash point

None

CANON OPTRON INC.

SDS Number: EL01  
Product Name: LaF3

## SAFETY DATA SHEET

rev. 6.5 Date of Issue 2016/2/17  
Revised Date 2018/6/6

Evaporation rate	<i>No data</i>
Flammability (solid, gas)	<i>No data</i>
Explosive limits	
LEL	<i>None</i>
UEL	<i>None</i>
Vapour pressure	<i>No data</i>
Vapour density (air = 1)	<i>No data</i>
Specific gravity (Relative density) (Density)	<i>5.93</i>
Solubility	
Water	<i>Insoluble</i>
Other solvents	<i>No data</i>
n-octanol/Water partition coefficient	<i>No data</i>
Auto-ignition temperature	<i>No data</i>
Decomposition temperature	<i>No data</i>
Viscosity (Coefficient of viscosity)	<i>No data</i>
Other data	<i>None</i>

## SECTION 10 Stability and reactivity

**LaF3**

Reactivity	<i>No data</i>
Chemical stability	<i>Stable under normal handling and storage conditions.</i>
Hazardous reactions	<i>Generates toxic hydrogen fluoride gases when heated in the atmosphere or when reacted with acid.</i>
Conditions to avoid	<i>High temperature and humidity</i>
Incompatible materials	<i>Oxidants, strong acids</i>
Hazardous decomposition products	<i>Generates toxic hydrogen fluoride due to heating or reaction with acids.</i>

## SECTION 11 Hazard information

**LaF3**

Acute toxicity(oral)	<i>May react with stomach acids if swallowed in large amounts.</i>
Acute toxicity(dermal)	<i>No data</i>
Acute toxicity(inhalation)	<i>No data</i>
Skin corrosion/irritation	<i>Necessary to take precautions for skin with scratches.</i>
Eye damage/eye irritation	<i>Causes strong irritation to the conjunctiva.</i>

CANON OPTRON INC.

SDS Number: EL01  
Product Name: LaF3

## SAFETY DATA SHEET

rev. 6.5 Date of Issue 2016/2/17  
Revised Date 2018/6/6

Respiratory sensitization/Skin sensitization	<i>May cause pneumoconiosis if inhaled in large amounts over a long period of time.</i>
Germ cell mutagenicity	<i>No data</i>
Carcinogenicity	<i>No data</i>
Reproductive toxicity	<i>No data</i>
Specific target organ toxicity(single exposure)	<i>No data</i>
Specific target organ toxicity(repeated exposure)	<i>No data</i>
Aspiration hazard	<i>No data</i>
Others	None

## SECTION 12 Ecological information

**LaF3**

Ecotoxicity	
Fish	<i>No data</i>
Crustaceantoxicity(single exposure)	<i>No data</i>
Algae	<i>No data</i>
Other organisms	<i>No data</i>
Persistence and degradability	<i>No data</i>
Bioaccumulative potential	<i>No data</i>
Mobility in soil	<i>No data</i>
Hazard to the ozone layer	<i>No data</i>
Others	<i>No data</i>

## SECTION 13 Notes on disposal

Waste from residues	Process is contracted to industrial waste disposers who received approval of a prefectural governor.
Contaminated container and contaminated packaging	The container is recycled after being cleaned, or is appropriately processed according to the standards of related laws and regulations.

## SECTION 14 Transport information

**LaF3**

International regulation	
UN classification	<i>No data</i>
UN number	<i>N/A</i>
UN proper shipping name	<i>None</i>
Packing group	<i>No data</i>

CANON OPTRON INC.

SDS Number: EL01  
Product Name: LaF3

## SAFETY DATA SHEET

rev. 6.5 Date of Issue 2016/2/17  
Revised Date 2018/6/6

Japanese laws and regulations	<i>None</i>
Conditions and specific safety measures of transport	<i>No data</i>

## SECTION 15 Regulatory information (Japan)

**LaF3**

PRTR Law	<i>No data</i>
Occupational Safety and Health Law	<i>No data</i>
Poisonous and Deleterious Substances control Law	<i>No data</i>
Explosives control Law	<i>No data</i>
High-pressure gas security Law	<i>No data</i>
Fire fighting Law	<i>No data</i>
Chemical substances control Law	<i>No data</i>
Ship safety Law	<i>No data</i>
Aviation Law	<i>No data</i>
Prevention of marine pollution Law	<i>No data</i>
Pneumoconiosis Law	<i>No data</i>
Note	Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

## SECTION 16 Other information

The Safety Data Sheet (SDS) has been prepared based on currently available materials, information and data, and may be revised based on new information. Further, the important points in the SDS are made for the purpose of normal handling. When handling the user product in a specialized manner, take the appropriate safety measures for the application or method. Further, Canon Optron Inc. has paid sufficient attention to the described contents of the SDS, but does not guarantee the accuracy of its contents.

## Literature Reference

## [References]

Industrial Safety and Health Act All Data of MSDS Target Substances: The Chemical Daily Co., Ltd (2003)  
Poisonous and Deleterious Substances Control Act All Data of MSDS Target Substances: The Chemical Daily Co., Ltd (2003)  
Pollutant Release and Transfer Register All Data of MSDS Target Substances: The Chemical Daily Co., Ltd (2003)  
Recommendations for Allowable Concentrations (Fiscal 2017): Japan Society for Occupational Health Journal of Occupational Health, Vol. 59 2017

## [WEB site]

National Institute of Technology and Evaluation Homepage  
Japan Advanced Information Center of Safety and Health Homepage  
Ministry of Health, Labour and Welfare Homepage

## [Regulatory review Tools]

ezCRIC (Japan Chemical Database Ltd)