TECHNICAL DATA SHEET

Date of Issue: 2021/07/22

# Cesium Iodide, purity min. 99.999 %, doped with TlI

| | |
|---|---|
| CAS-No. | 7789-17-5 |
| EC-No. | 232-145-2 |
| REACH No. | 01-2119977123-37-0000 |
| Molecular formula | Cs-I |
| Product number | 10001860, 10001861, 10001862 |

## APPLICATION

Cesium iodide is a highest purity product particularly used for scintillation purposes, e.g. in medical imaging.

## PURITY

min. 99.999 %

## SPECIFICATION

| | |
|---|---|
| Li | max. 0.2 ppm |
| K | max. 0.5 ppm |
| Rb | max. 0.5 ppm |
| Ca | max. 0.1 ppm |
| Mg | max. 0.1 ppm |
| Sr | max. 0.2 ppm |
| Ba | max. 0.5 ppm |
| Al | max. 0.1 ppm |

The information presented herein is believed to be accurate and reliable, but is presented without guarantee or responsibility on the part of Albemarle Corporation and its subsidiaries and affiliates. It is the responsibility of the user to comply with all applicable laws and regulations and to provide for a safe workplace. The user should consider any health or safety hazards or information contained herein only as a guide, and should take those precautions which are necessary or prudent to instruct employees and to develop work practice procedures in order to promote a safe work environment. Further, nothing contained herein shall be taken as an inducement or recommendation to manufacture or use any of the herein materials or processes in violation of existing or future patent.

Technical data sheets may change frequently. You can download the latest version from our website

www.albemarle-lithium.com. Please contact us at www.albemarle-lithium.com/contact with questions.

ALBEMARLE®

| | |
|---|---|
| Fe | max. 0.1 ppm |
| Cr | max. 0.1 ppm |
| Mn | max. 0.1 ppm |
| SO4 | max. 5 ppm |
| SiO2 | max. 0.5 ppm |
| Zn | max. 0.2 ppm |
| Ni | max. 0.5 ppm |
| NO3 | max. 5 ppm |
| Cl | max. 5 ppm |
| Br | max. 5 ppm |
| IO3 | max. 5 ppm |
| insolubles (before doping) | max. 25 ppm |
| weight loss (500 °C) | max. 0.1 % |
| TlI | max. 1 % |

Various other sodium iodide doped products are available. Deliveries are accompanied by a lot specific certificate of analysis. If any of these values is critical to your application, please let us know.

## PHYSICAL PROPERTIES

| | |
|---|---|
| Appearance | Crystalline powder |
| Colour | white to light yellow |
| Melting point/range | ca. 628 °C at 1,013 hPa Method: OECD Test Guideline 102 |
| Boiling point/boiling range | ca. 1,280 °C |
| Density | 4.51 g/cm3 at 20 °C |
| Bulk density | 2,200 - 3,300 kg/m3 |
| Water solubility | 669.7 g/l at 20 °C Method: OECD Test Guideline 105 (Cesium iodide) |
| Molecular weight | 259.81 g/mol |

The information presented herein is believed to be accurate and reliable, but is presented without guarantee or responsibility on the part of Albemarle Corporation and its subsidiaries and affiliates. It is the responsibility of the user to comply with all applicable laws and regulations and to provide for a safe workplace. The user should consider any health or safety hazards or information contained herein only as a guide, and should take those precautions which are necessary or prudent to instruct employees and to develop work practice procedures in order to promote a safe work environment. Further, nothing contained herein shall be taken as an inducement or recommendation to manufacture or use any of the herein materials or processes in violation of existing or future patent.

Technical data sheets may change frequently. You can download the latest version from our website

www.albemarle-lithium.com. Please contact us at www.albemarle-lithium.com/contact with questions.

ALBEMARLE®

## HANDLING & STORAGE

Storage — Cesium iodide is hygroscopic and should thus be stored in tightly closed containers under exclusion of moisture.

## TRANSPORT & PACKAGING

UN number 3077

| | | | |
|---|---|---|---|
| ADR | Class: 9 | PG: III | Label: 9 |
| RID | Class: 9 | PG: III | Label: 9 |
| IMDG | Class: 9 | PG: III | Label: 9 |
| IATA_C | Class: 9 | PG: III | Packing instruction (cargo aircraft): 956 |
| IATA_P | Class: 9 | PG: III | Packing instruction (passenger aircraft): 956 |

Hazard pictograms

Signal word — Warning

H&P Phrases — See Safety Data Sheet

Labelling — The labelling is according to EU-GHS classification ((EG) 1272/2008) and may vary in other countries. Please refer to the respective Safety Data Sheet for your country.

Packaging

Polyethylene bottles or bags with aluminium barrier in drums (fiber drums, clamping ring drums, steel drums, steel drums with polypropylene inner lining). The aluminium barrier prevents diffusion of moisture into the product. Alternative packaging on request. Smaller units available at surcharge.

The information presented herein is believed to be accurate and reliable, but is presented without guarantee or responsibility on the part of Albemarle Corporation and its subsidiaries and affiliates. It is the responsibility of the user to comply with all applicable laws and regulations and to provide for a safe workplace. The user should consider any health or safety hazards or information contained herein only as a guide, and should take those precautions which are necessary or prudent to instruct employees and to develop work practice procedures in order to promote a safe work environment. Further, nothing contained herein shall be taken as an inducement or recommendation to manufacture or use any of the herein materials or processes in violation of existing or future patent.

Technical data sheets may change frequently. You can download the latest version from our website

www.albemarle-lithium.com. Please contact us at www.albemarle-lithium.com/contact with questions.

ALBEMARLE®

## OTHER INFORMATION

| | |
|---|---|
| Further Related Documents | Safety Data Sheet |

The information presented herein is believed to be accurate and reliable, but is presented without guarantee or responsibility on the part of Albemarle Corporation and its subsidiaries and affiliates. It is the responsibility of the user to comply with all applicable laws and regulations and to provide for a safe workplace. The user should consider any health or safety hazards or information contained herein only as a guide, and should take those precautions which are necessary or prudent to instruct employees and to develop work practice procedures in order to promote a safe work environment. Further, nothing contained herein shall be taken as an inducement or recommendation to manufacture or use any of the herein materials or processes in violation of existing or future patent.

Technical data sheets may change frequently. You can download the latest version from our website

www.albemarle-lithium.com. Please contact us at www.albemarle-lithium.com/contact with questions.

ALBEMARLE®