

TECHNICAL DATA SHEET

Date of Issue: 2025/05/20

Thallium Iodide, granules, highest purity

CAS-No.	7790-30-9
EC-No.	232-199-7
Molecular formula	I-Tl
Product number	12000089, 12000016

APPLICATION Thallium iodide is primarily used as a doping agent for alkali halides in scintillation applications.

SPECIFICATION

Al	max. 2 ppm
As	max. 2 ppm
Ba	max. 2 ppm
Bi	max. 2 ppm
Cd	max. 2 ppm
Cr	max. 2 ppm
Cu	max. 2 ppm
Fe	max. 2 ppm
Hg	max. 2 ppm
K	max. 5 ppm
Mg	max. 2 ppm
Mn	max. 2 ppm
Ni	max. 2 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.com.

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



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NO3	max. 10 ppm
Pb	max. 2 ppm
Sb	max. 2 ppm
Si	max. 5 ppm
Sn	max. 2 ppm
SO4	max. 10 ppm

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	solid
Color	yellow
Melting point/range	440 °C
Boiling point/boiling range	823 °C
Density	7.29 g/cm ³
Water solubility	0.063 g/l at 20 °C
Molecular weight	331.27 g/mol
Grain Size	0.3 – 3.0 mm
Additional Physical Properties	Thallium content: 61.69 % (theoretical)

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HANDLING & STORAGE

Handling	Thallium iodide is very toxic. The safety precautions typical for the use of toxic inorganic powders must be taken. Contact to skin or eyes may cause severe burns and symptoms of poisoning. Due to its toxicity inhalation and ingestion must strictly be avoided. Seek medical advice in every case of contact, ingestion or inhalation, do not induce vomiting.
Storage	Store in tightly closed containers away from food, strong acids and oxidizing agents.

TRANSPORT & PACKAGING

UN number 1707

ADR	Class: 6.1	PG: II	Label: 6.1
RID	Class: 6.1	PG: II	Label: 6.1
IMDG	Class: 6.1	PG: II	Label: 6.1
IATA_C	Class: 6.1	PG: II	Packing instruction (cargo aircraft): 676
IATA_P	Class: 6.1	PG: II	Packing instruction (passenger aircraft): 669

Hazard pictograms



Signal Word	Danger
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.

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Packaging

PE bags with aluminium lining or PE bottles. Alternative packaging on request. Smaller units available at surcharge.

OTHER INFORMATION

Further Related Documents Safety Data Sheet

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