



Cesium Metal highest purity

Product number :	424000
CAS-No. :	[7440-46-2]
Appearance :	gold-coloured metallic solid / liquid
Assay :	min. 99.99 %
Formula :	Cs
Formula weight :	132.91
Cesium content :	n/a
Specific gravity :	1.873 g/cm ³
Bulk density :	n/a
Melting point :	28.65°C
Solubility :	n/a
pH-Value :	n/a
Standard electrode potential:	- 2.923 V
Ionization potential:	3.87 eV

Chemical analysis* :

in ppm

Li	max.	1
Na	max.	2
K	max.	5
Rb	max.	10

Should you consider any of these values to be critical, please let us know.

Page 1 of 2

Edition: November 2003

Cesium Metal highest purity

Applications :

Cesium metal can be used as ionic source, in lamps, doping of fullerenes, in atomic beam oscillators, photocells, thermoionic converters etc. [Ref.: H. Hofmann, J. Weinrich; Metall Z (1992)].

Safety and handling :

Due to its extreme reactivity towards oxygen, water and acids contact with these substances and with air must be avoided under all circumstances. Cesium metal is stable if stored in sealed glass ampoules or in stainless steel containers. Care should be taken not to break glass ampoules.

Packaging :

Standard: cylindrical borosilicate glass ampoules sealed under high vacuum and containing 1, 5 or 10 g each.

Optional: larger ampoules possible, breakseal ampoules available.

Transport classification :

AIR: IATA-DRG: UN-No. 1407, Class 4.3, I, Caesium

Label: Dangerous When Wet /
Shipper's declaration:

PAX Forbidden
CAO 412 - max. 15 kg

SEA: IMDG: UN-No. 1407 / Class 4.3

Label: Dangerous When Wet /
Certificate of shipment

Class 4.3 page 4334
EMS: 4.3 - 01
MFAG: 705

MAIL: Not acceptable

RAIL: RID: 1407, Caesium, 4.3 / 11

ROAD: ADR: 1407, Caesium, 4.3 / 11

In accordance with EEC regulations all packing units are marked as follows:

Symbol F "Highly Flammable", C "Corrosive"

R: 14 / 15 , 34

S: 6, 8, 24 / 25, 26, 36 / 39 , 43

Other cesium products :

Cesium acetate
bicarbonate
bromide
carbonate
chloride
fluoride
hydrogen carbonate
hydroxide, aqueous solution hydroxide or monohydrate
iodide
nitrate
oxalate
sulphate

Other grades and / or products on request

Page 2 of 2

Edition: November 2003

Chemetall GmbH

Special Metals Division

Trakehner Straße 3
D-60487 Frankfurt am Main
P.O. Box 90 01 70
D-60441 Frankfurt a.M.
Phone +49 69 7165-3911
Fax +49 69 7165-2523
Mail cesium@chemetall.com

The above details have been compiled to the best of our knowledge on the basis of thorough tests and with regard to the current state of our long practical experience.

No liabilities or guarantees deriving from or in connection with this leaflet can be imputed to us. Reproduction in whole or in part, only for personal use.