

GHS Product Identifier: 100.04, Iodine Crude; 100.15, Iodine USP; 100.24, Iodine ACS; 100.34, Iodine HP

Formula Description: Heavy, purplish-black flakes or prills with metallic luster.

Recommended Use: Elemental Iodine (I₂) is used as the precursor for manufacturing several inorganic and organic derivatives ⁽¹⁾; It is also used as an efficient catalyst ⁽²⁾ in organic synthesis, and as a disinfectant and anti-bacterial agent in solutions ⁽³⁾, tinctures and salves; used in x-ray contrast media ⁽⁴⁾. Not permitted in the manufacturing of clandestine chemicals.

General Properties:

Molecular Weight 253.8	Density 4.933 g/cm ³ (25°C)
Melting Point 113.7°C	Boiling Point 184.3°C

Chemical Product Specifications

	Iodine Crude
Assay	99.5% min
Nonvolatile Residue	0.05% max
Chloride & Bromide	0.05% max

Deepwater's **PurI₂** products offer you full traceability for all raw materials.

All products are manufactured under current Good Manufacturing Practices (cGMP) in our US FDA registered plant. FEI #2013633.



	PurI₂ USP	PurI₂ ACS	PurI₂ High	PurI₂ 5N
Assay	99.8% - 100.5%	99.8% min		
Purity by difference			99.99% min	99.999% min
Nonvolatile Residue	0.05% max	0.01% max	0.005% max	
Chloride & Bromide	0.028% max			
Chlorine & Bromine		0.005% max	0.005% max	
Identification A & B	Passes Test			
Elemental Impurities Class 1	Cd, Pb, As, Hg			
Elemental Impurities Class 2A	Co, V, Ni			

*Compendial grades conform to current USP and ACS editions

Standard Packaging

Net Weight	Packaging
12.5 lbs.	1.0 gal 1H2/X12/S NL Curtec
25 kgs.	4.0 gal 1H2/X30/S PP
50 kgs	8.5 gal 1G/Y55/S Fiberboard
Material packaged with Saran inner liner and polyethylene out liner; suitable for export. Curtec drum does not include liner.	

SDS with detailed information available upon request.



References:

1) **I₂-Catalyzed Regioselective Oxo- and Hydroxy-acyloxylation of Alkenes and Enol Ethers: A Facile Access to α - Acyloxyketones, Esters, and Diol Derivatives**, Rambabu N. Reddi, Pragati K. Prasad, and Arumugam Sudalai

Organic Letters 2014 16 (21), 5674-5677

2) Zhong-Jian Cai, Shun-Yi Wang, and Shun-Jun Ji, **I₂/TBHP-Catalyzed Chemoselective Amination of Indoles**, Organic Letters 2013 15 (20), 5226-5229

3) Gerald Berg, Shih Lu Chang, Eugene K.Harris, **Devitalization of microorganisms by iodine: I. Dynamics of the devitalization of enteroviruses by elemental iodine**, Virology , Volume 22, Issue 4, April 1964, Pages 469-481

4) Krause, W. (2014). **Iodinated X-Ray Contrast Agents**. In **Iodine Chemistry and Applications**, T. Kaiho (Ed.).