

## Technical Data Sheet (TDS)

### 1. Product Overview

- Product Name: Iodine
- English Name: Iodine
- CAS Number: 7553-56-2
- Formula: I<sub>2</sub>
- Molecular Weight: 253.81 g/mol
- Product Characteristics: High-purity deep violet crystalline flakes, pungent odor. Strong disinfectant and oxidizing properties. Slightly soluble in water, soluble in organic solvents and potassium iodide solutions.

### 2. Technical Specifications

Item	Specification
Appearance	Deep violet crystalline flakes
Purity (I <sub>2</sub> )	≥ 99.5%
Chlorine (Cl <sup>-</sup> )	≤ 0.01%
Bromine (Br <sup>-</sup> )	≤ 0.1%
Heavy Metals (Pb)	≤ 0.001%
Moisture Content	≤ 0.1%
Insoluble Matter in Ethanol	≤ 0.05%
Melting Point	113.7°C
Boiling Point	184.4°C
Solubility (20°C)	0.03 g/L (water); soluble in ethanol/KI solution

### 3. Product Advantages

- High purity ensures effective disinfection and synthesis performance.
- Strong bactericidal activity against bacteria, viruses, and fungi.
- Versatile solubility in organic solvents and complexing agents.
- Consistent quality with strict batch testing.

### 4. Application Fields

- Medical & Healthcare: Disinfectant for skin, wounds, and medical equipment (tincture of iodine).
- Water Treatment: Disinfection of drinking water and swimming pools (alternative to chlorine).
- Organic Synthesis: Production of pharmaceuticals, dyes, and iodinated compounds.
- Laboratory: Analytical reagent for titrations and chemical tests.
- Other: Animal feed additive (iodine supplement), photography, semiconductor manufacturing.

### 5. Usage Methods

- Medical Disinfection: Dilute to 2-5% tincture (with ethanol) or 1% aqueous solution (with KI), apply topically.
- Water Treatment: Add 0.1-0.5 ppm to water, maintain contact time of 30 minutes.



## NEWAY SINOPHC TECH. LIMITED

ADD:RM. 204, BUILDING 3, NO. 188, AONA RD., CHINA (SHANGHAI) PILOT FREE TRADE ZONE.  
Email:marketing01@newayphc.com; Phone:+86-021-50350029 <https://www.newayphc.com>

---

- Organic Synthesis: Use 1.0-1.5 equivalents relative to substrate, react at 20-80°C.
- Optimal Conditions: Use at 15-35°C; avoid contact with reducing agents.

### 6. Packaging & Storage

- Packaging Specifications: 100 g/bottle, 500 g/bottle, 1 kg/bottle (amber glass), 25 kg/drum (HDPE).
- Storage Conditions: Store in cool, dry, well-ventilated warehouse. Keep in amber glass or opaque containers to avoid light. Temperature  $\leq 30^{\circ}\text{C}$ .
- Shelf Life: 24 months (unopened).
- Transportation: Handle as UN1827. Avoid collision, light, and moisture.

### 7. Safety & Protection

- Wear protective gloves, safety goggles, and dust mask during handling.
- Avoid contact with skin, eyes, and respiratory tract. In case of contact, follow first aid measures.
- Keep away from reducing agents, metals, and organic materials.

### 8. Quality Assurance

- Manufactured under ISO 9001 quality management system.
- Medical-grade products meet USP and EP standards.
- Each batch accompanied by COA.

A large, faded watermark of the Neway Sinophc Tech logo is centered on the page. It consists of the stylized 'N' symbol and the text '纳维盈医化科技' and 'NEWAY SINOPHC TECH' in a light blue color.

纳维盈医化科技  
NEWAY SINOPHC TECH