

ANTIMONY INGOTS

Product Technical Datasheet

"High Purity Metallic Antimony for Industrial & Metallurgical Applications"

Sb

CHEMICAL SYMBOL
Sb

CAS NUMBER
7440-36-0

MOLECULAR WT.
121.76 g/mol

HS CODE
8110

PURITY GRADE
Sb 99.65%+

PRODUCT OVERVIEW

Antimony ingots are high-purity metallic materials widely used in metallurgy, alloy production, battery manufacturing, flame retardants, semiconductors, and specialty industrial applications. Antimony enhances hardness, corrosion resistance, and mechanical strength in alloys, making it an essential commodity in global industrial supply chains.

PRODUCT IDENTIFICATION

Product Name	Antimony Ingot
Chemical Name	Antimony
Chemical Symbol	Sb
CAS Number	7440-36-0
EC Number	231-146-5
Molecular Weight	121.76 g/mol
HS Code	8110
Appearance	Silvery White Metallic Ingot
Form	Solid
Odor	Odorless

CHEMICAL COMPOSITION

STANDARD GRADE Sb $\geq$ 99.65%

HIGH PURITY GRADE Sb $\geq$ 99.90%

Element	
Sb	≥ 99.65%
As	≤ 0.10%
Fe	≤ 0.03%
S	≤ 0.06%
Cu	≤ 0.05%
Pb	≤ 0.30%

Element	Specification
Sb	≥ 99.90%
Pb	≤ 0.03%
As	≤ 0.03%
Fe	≤ 0.005%
S	≤ 0.01%
Se	≤ 0.003%
Cu	≤ 0.003%

PHYSICAL & CHEMICAL PROPERTIES

Color	Silver-White
Density	6.68 – 6.69 g/cm ³
Melting Point	630.5 °C
Boiling Point	1,635 °C – 1,950 °C
Hardness	Mohs 3
Crystal Structure	Hexagonal
Electrical Conductivity	Poor Conductor
Thermal Conductivity	Low
Solubility in Water	Insoluble
Ductility	Brittle / Non-Ductile

PACKAGING & SIZE SPECIFICATIONS

Standard Weight	25 kg per ingot
Shape	Trapezoidal / Rectangular
Dimensions	Approx. 450 × 100 × 80 mm
Packaging	Wooden crates / pallets
Bulk Packing	100 kg / 1,000 kg
Storage	Dry and ventilated environment

INDUSTRIAL APPLICATIONS

METALLURGY

- Alloy hardening (lead, tin)
- Bearings & solder production
- Cable sheathing

FLAME RETARDANTS

- Production of antimony trioxide (Sb₂O₃)
- Plastic & textile treatments

BATTERY INDUSTRY

- Lead-acid battery grids
- Battery grid components

ELECTRONICS & GLASS

- Semiconductor applications
- Infrared optics
- Thermoelectric materials
- Opacifier in enamel & glass

SAFETY INFORMATION

Handling	Use appropriate gloves and safety glasses
Dust Protection	Avoid inhalation of dust/fumes during processing
Storage	Store in dry, well-ventilated environment
Fire Hazard	Non-flammable solid under normal conditions
Environmental	Prevent release into waterways/environment

■ **HAZARD INFORMATION:** May cause skin and eye irritation. Harmful if inhaled during melting or processing. Industrial safety precautions are required at all times.

QUALITY ASSURANCE

Test / Standard	Purpose
ICP-OES	Chemical purity analysis
SGS Inspection	Pre-shipment third-party inspection
EN 10204	Material test certificate
COA	Certificate of Analysis — chemical composition report

KEY PRODUCT ADVANTAGES

✓ High purity metal with consistent quality standards
✓ Excellent alloy-strengthening properties for industrial applications
✓ Corrosion resistant and chemically stable under normal conditions
✓ Industrial-grade reliability suitable for global trade applications
✓ Available in standard and high-purity grades to meet diverse needs
✓ SGS pre-shipment inspection available upon request

CONTACT & COMPANY INFORMATION

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