

Sb



Grade: 4N/5N/6N/7N

Properties:Antimony is a relatively stable metal element, not easy to oxidize at room temperature, with corrosion resistance. Antimony is brittle, fragile and non-ductile. Antimony is also a poor conductor of electricity and heat.

Uses:Preparation of high purity alloys, infrared materials; P-type materials for solar cells, doping source for N-type silicon single crystals.

· Identifier

Chemical Formula	Sb
CAS No.	7440-36-0
EINECS No.	231-146-5

· Physical and chemical properties

Molecular weight	121.76 g/mol	Flash point	-18℃	Reactivity	Stable in air, combustible when exposed to open flame and high heat
Appearance	Silver-white solid	Melting point	630.5℃	Solubility	Soluble in hot concentrated sulfuric acid, insoluble in water
Density	6.7 g/cm ³	Boiling point	1635℃	Storage	Shady and cool, well-ventilated

· Metal impurities

Impurities	5N/ppbw	6N/ppbw	7N/ppbw	Impurities	5N/ppbw	6N/ppbw	7N/ppbw
Na	≤500	≤100	≤10	Ni	≤200	≤50	≤10
Mg	≤200	≤50	≤10	Cu	≤50	≤10	≤10
Al	≤500	≤50	≤10	Zn	≤500	≤50	≤10
Si	≤1000	≤100	≤10	Se	/	/	≤10
P	/	/	≤10	As	≤1000	≤100	≤30
S	≤500	≤100	≤15	Ag	≤50	≤10	≤10
K	/	/	≤10	Pb	≤200	≤20	≤10
Ca	≤500	≤100	≤10	Bi	≤200	≤20	≤10
Cr	/	/	≤10	/	/	/	/
Fe	≤500	≤50	≤10	Combined total impurities	≤10000	≤1000	≤10



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· Metal impurities

Impurities	4N antimony ingot /ppmw	4N antimony pellet (water prepared) /ppmw	4N antimony pellet (antimony glycerinum) /ppmw	distilled antimony /ppmw		antimony powder /ppmw	
Ag	≤1	≤1	/	≤1	≤1	/	/
Pb	≤10	≤10	≤25	≤150	≤25	≤1500	≤1500
As	≤20	≤20	≤25	≤150	≤25	≤500	≤500
Fe	≤2	≤2	/	≤5	≤2	/	≤150
Cd	≤2	≤2	/	≤2	≤2	/	/
Ni	≤1	≤1	/	≤5	≤1	/	/
Cu	≤1	≤1	/	≤5	≤2	≤1000	≤1000
Au	≤1	≤1	/	≤1	≤1	/	/
Si	≤5	≤5	/	≤5	≤6	/	/
Zn	≤2	≤2	/	≤10	≤2	≤800	≤1000
Mg	≤2	≤2	/	≤2	≤2	/	/
Mn	≤1	≤1	/	≤1	≤1	/	/
S	≤20	≤20	/	≤20	≤20	/	≤80
Bi	≤25	≤25	/	/	≤25	/	/
Se	/	/	/	/	/	≤100	≤100
Combined total impurities	≤100	≤100	≤100	≤400	≤100	/	/

· Metal impurities

Impurities	-1mm	-10mm	+100 Mesh	+140 Mesh	+170 Mesh	+200 Mesh	-200-+325 Mesh	-325 Mesh	loose ratio	tight ratio
4N antimony pellet (water prepared)	0.75%	100%	/	/	/	/	/	/	/	/
4N antimony pellet (antimony glycerinum)	0.75%	100%	/	/	/	/	/	/	/	/
antimony powder	/	/	0.01%	0.2%	1%	3%	10-26%	74-90%	≥2.35 g/ml	3.3-3.9 g/ml
	/	/	/	/	/	0.1%	10-17%	83-90%	/	/



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