

Properties: Gallium is a silvery-white liquid metal or soft, moldable solid metal at room temperature with a low melting point and high boiling point. Stable in dry air, in moist air it tarnishes. If exposed to high temperatures, gallium may emit toxic fumes which may form a corrosive alkaline solution with water.

Uses: Gallium source for molecular beam epitaxy (MBE); preparation of semiconductor materials. Manufacture of laser diodes and solar cells.

· Identifier

Chemical Formula	Ga
CAS No.	7440-55-3
EINECS No.	231-163-8

· Physical and chemical properties

Molecular weight	69.72 g/mol	Flash point	/	Reactivity	Stable in dry air at room temperature oxidized in humid air
Appearance	grayish-blue or silvery-white metal	Melting point	29.8°C	Solubility	Insoluble with strong acids, strong bases, strong oxidizing agents
Density	5.904 g/cm ³	Boiling point	2403°C	Storage	Shady and cool, well-ventilated

· Metal impurities

Impurities	4N/ppmw	5N/ppmw	6N/ppbw	7N/ppbw
Cu	≤5	≤0.2	≤10	≤2
Pb	≤20	≤0.1	≤20	≤2
Zn	≤5	≤0.2	≤50	≤3
Al	≤5	≤0.5	≤50	/
In	≤5	/	/	/
Ca	≤5	≤1	≤100	≤3
Fe	≤5	≤0.5	≤50	≤5
Sn	≤5	/	/	≤3
Ni	≤5	≤0.1	≤10	≤3
Co	/	≤0.2	≤20	/
Ag	/	≤0.2	≤100	/
Mg	/	≤0.2	≤20	≤2
Au	/	≤0.1	≤20	/
Si	/	≤1	≤100	≤2
Hg	/	≤0.5	≤100	/
Mn	/	/	/	≤2
Cr	/	/	/	≤2
Na	/	/	/	≤3
Combined total impurities	≤100	≤10	≤1000	≤100

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