

Properties: Colorless transparent liquid at room temperature and atmospheric pressure, easily oxidized in air, spontaneous combustion at room temperature, producing white smoke of metal oxides, and will decompose itself at high temperature. It is soluble in any proportion in aliphatic saturated hydrocarbons such as hexane and heptane and aromatic hydrocarbons such as toluene and xylene. Reacts violently with water to form Me_2GaOH and $[(\text{Me}_2\text{Ga})_2\text{O}]\text{X}$, and produces methane.

Uses: Preparation of gallium-containing thin films and synthesis of gallium nitride (GaN) and gallium compound semiconductor materials; preparation of semiconductor compounds such as GaAs and AsGaAl; preparation of electronic components such as light-emitting diodes.

· Identifier

Chemical Formula	$\text{Ga}(\text{CH}_3)_3$
CAS No.	1445-79-0
EINECS No.	215-897-6

· Physical and chemical properties

Molecular weight	114.83 g/mol	Flash point	-18°C	Reactivity	Highly reactivity, spontaneous combustion in the air
Appearance	Colorless transparent liquid	Melting point	-15.8°C	Solubility	Soluble in non-polar organic solvent
Density	1.151 g/cm ³	Boiling point	55.8°C	Storage	stored in the noble gas

· Metal impurities

Impurities	Unit	Specification	Impurities	Unit	Specification
Ag	ppm	≤0.2	Mg	ppm	≤0.02
Al	ppm	≤0.1	Mn	ppm	≤0.03
As	ppm	≤0.5	Ni	ppm	≤0.2
B	ppm	≤0.2	Pb	ppm	≤1
Ba	ppm	≤0.1	S	ppm	≤1
Be	ppm	≤0.02	Sb	ppm	≤0.5
Bi	ppm	≤0.5	Si	ppm	≤0.2
Ca	ppm	≤0.05	Sn	ppm	≤1
Cd	ppm	≤0.02	Sr	ppm	≤0.1
Co	ppm	≤0.2	Ti	ppm	≤0.1
Cr	ppm	≤0.2	Zn	ppm	≤0.2
Cu	ppm	≤0.05	V	ppm	≤0.3
Fe	ppm	≤0.1	Pd	ppm	≤0.5
Ge	ppm	≤0.5	Pt	ppm	≤0.5
Hg	ppm	≤0.5	O	ppm	≤1

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