

Properties: Colorless liquid at room temperature and atmospheric pressure, spontaneous combustion in air. Reacts violently with water, oxidizing agents, halogenated hydrocarbons, alcohols or other oxygenated organic substances. Miscible with aliphatic hydrocarbons such as ethane and heptane and aromatic hydrocarbons such as toluene and xylene in any proportion. Trimethylaluminum is stable at room temperature and decomposes slowly at temperatures above 100°C.

Uses: ALD/CVD/MOCVD key precursors; Preparation of high-purity aluminum containing thin films, aluminum oxide, aluminum nitride and other thin films; Catalysts and auxiliary agents in organic synthesis and polymer synthesis reactions.

· Identifier

Chemical Formula	Al(CH ₃) ₃
CAS No.	75-24-1
EINECS No.	200-853-0

· Physical and chemical properties

Molecular weight	72.09 g/mol	Flash point	4.5°C	Reactivity	Highly reactivity, spontaneous combustion in the air
Appearance	Colorless transparent liquid	Melting point	15.28°C	Solubility	Soluble in aromatic, saturated aliphatic and alicyclic hydrocarbons
Density	0.81 g/cm ³	Boiling point	127.12°C	Storage	stored in the noble gas

· Metal impurities

Impurities	5N/ppm	6N/ppm	Impurities	5N/ppm	6N/ppm
Ag	< 0.50	< 0.40	Li	< 0.05	/
As	< 0.25	/	Mg	< 0.05	< 0.02
B	< 0.15	< 0.40	Mn	< 0.05	< 0.03
Ba	< 0.05	/	Na	< 0.25	/
Be	< 0.05	< 0.02	Ni	< 0.15	< 0.50
Ca	< 0.15	< 0.20	Pb	< 0.15	< 1.00
Cd	< 0.05	< 0.02	S	< 0.25	/
Co	< 0.10	/	Si	< 6.00	< 0.50
Cr	< 0.20	< 0.40	Sr	< 0.05	< 0.10
Cu	< 0.20	< 0.10	Sn	< 0.05	< 1.00
Fe	< 0.10	< 0.10	Ti	< 0.10	/
Hg	< 0.10	/	W	< 0.20	/
Ge	< 0.10	< 0.50	V	< 0.15	/
K	< 0.25	/	Zn	< 0.15	< 0.20
			O	< 20	< 20



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