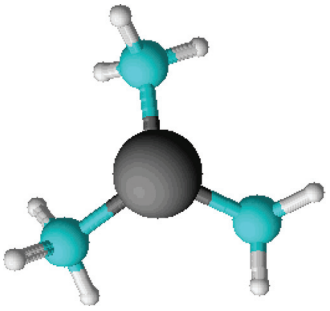
TMA High-K Aluminum precursor. Product data.



Chemical data

Trimethylaluminum.

Application & handling

- TMA is an aluminium alkyl precursor used in ALD or MOCVD for the deposition of pure Al_2O_3 thin films.
- TMA is the preferred metal organic source of aluminium containing compound semiconductors such as AlAs, AlN, AlSb, AlGaAs, AlInGaAs, AlInGaP, AlGaN, AlInGaN, AlInGaNP, etc.
- TMA is a clear liquid pyrophor that burns spontaneously upon contact with air, and reacts explosively with water.
- TMA must be delivered in perfectly dry, oxygen-free piping and components to ensure particle-free processing.

Technical data

Formula	$Al[(CH_3)]_3$
Molecular weight	72.1
Boiling point	125–126°C
Density	0.75 g/ml
Physical characteristics	Liquid (colorless)
Thermal decomposition	N/A
Reactivity	Reacts violently with water and spontaneously in air

Shipping information

Proper shipping name	Aluminum alkyl, n.o.s. (Trimethyl Aluminum)
CAS no.	75-24-1
UN no.	3051
Class/division	4.2
Packaging group	I
Hazard labels required	Class 4.2 (Spontaneously combustible), Class 4.3 (Dangerous when wet)

Hazard rating

Health	3
Flammability	3
Reactivity	3
Special notes	Water reactive

Product information

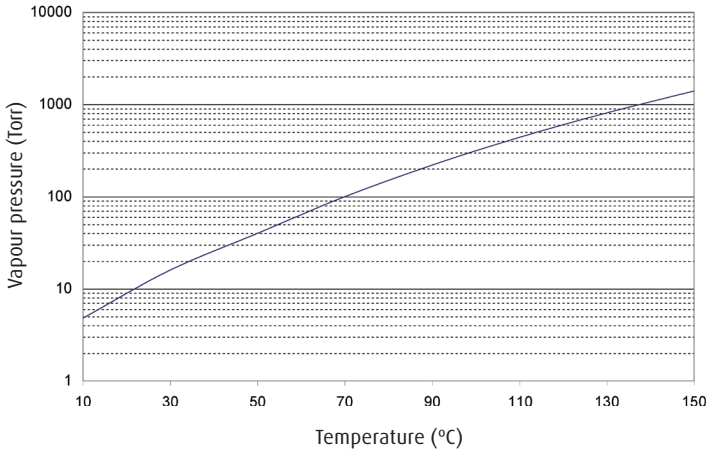
Grade	Up to N6 (99.9999%)
Size	TMA can be packaged in canisters of varying size. Contact Linde Electronics for a size suitable for your application.
Container material	EP 316L stainless steel for all wetted parts

Product specification

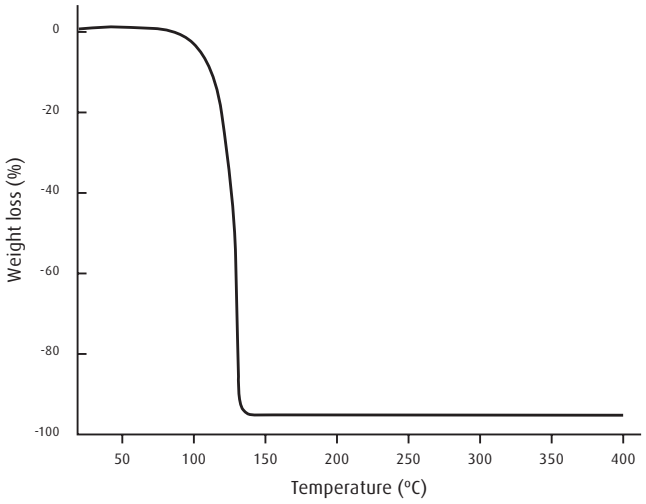
Parameter	Specification
Assay (%)	> 99.0% based on total metallic impurities
Total impurities ppb (excluding Zr)	< 1000 ppb
Particle count (per L)	< 700
Water content (ppm)	N/A

Contact Linde Electronics for a complete specification

Vapour pressure curve



TG/DTA analysis



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