



Cp₂Mg SSG

Product description

Bis(cyclopentadienyl)magnesium, select semiconductor grade

| | |
|-------------------|--|
| Molecular formula | : (C ₅ H ₅) ₂ Mg |
| Molecular weight | : 154.4 |
| CAS No. | : 1284-72-6 |
| EINECS/ELINCS No. | : not registered |
| TSCA status | : listed on inventory |

Cp₂Mg SSG is used as a high quality Mg precursor for the deposition of compound semiconductors and commonly applied as dopant in GaN based material systems.

Specifications

For detailed specification please contact your AkzoNobel representative.

Characteristics

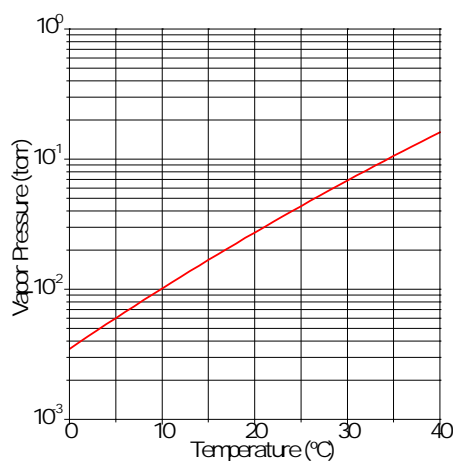
| | |
|-------------------------|---|
| Appearance | : yellow crystalline solid |
| Density, 20°C | : 1.1 g/ml |
| Melting point | : 176°C |
| Boiling point, 760 torr | : >300°C (decomposes) |
| Stability to air | : ignites upon exposure |
| Stability to water | : reacts violently, may ignite upon contact |
| Solubility | : soluble in aromatic and saturated aliphatic and cycloaliphatic hydrocarbons |

Vapor pressure

| | |
|--------------------|--------------|
| at 10°C (283.15 K) | : 0.010 torr |
| at 20°C (293.15 K) | : 0.027 torr |

Gas constants: $\log P(\text{torr}) = B - A/T(K) - 2.18 \ln T(K)$

| | |
|---|---------|
| A | : 4198 |
| B | : 25.14 |



Storage

Cp₂Mg SSG is stable when stored under a dry, inert atmosphere and away from heat. CAUTION: Cp₂Mg SSG may undergo exothermic decomposition with gas evolution at elevated temperatures (see section on Safety and handling).

Packaging and transport

Containers are fabricated from stainless steel with an electropolished internal finish and are equipped with dip tube for top discharge and diaphragm valves. The diaphragm valves are equipped with metal gasket face seal connections such as Swagelok® VCR®.

For more information please refer to our Cylinder Offerings leaflet, available at www.akzonobel.com/hpmo. Both packaging and transport meet the international regulations.

Cp₂Mg SSG is classified as Organometallic substance, solid, pyrophoric, water-reactive; Class 4.2; UN 3393; PG I.

Safety and handling

Cp₂Mg SSG ignites upon exposure to air and reacts violently with water. Water must be scrupulously removed from process equipment prior to putting it into metal alkyls service. Failure to do so may result in an explosion. If heated above elevated temperature, Cp₂Mg SSG will undergo exothermic decomposition with evolution of flammable gas. Products of complete combustion of Cp₂Mg SSG are magnesium oxide, carbon dioxide and water. Cp₂Mg SSG causes severe burns to the skin and eyes. It is imperative that proper personal protective equipment be worn when handling Cp₂Mg SSG.

Please refer to the Material Safety Data Sheet (MSDS) for further information on the safe storage, use and handling of Cp₂Mg SSG. This information should be thoroughly reviewed prior to acceptance of this product.

The MSDS is available at www.akzonobel.com/hpmo.

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AkzoNobel Functional Chemicals
Amersfoort, The Netherlands
T +31 33 467 6767
F +31 33 467 6151

E metalorganicsEU@akzonobel.com

AkzoNobel Functional Chemicals
Chicago, U.S.A.
T +1 312 544 7000
1 800 828 7929 (Toll free US only)
F +1 312 544 7188
E metalorganicsNA@akzonobel.com

www.akzonobel.com/hpmo

Akzo Nobel (Asia) Co., Ltd.
Shanghai, PR China
T +86 21 2216 3600
F +86 21 3360 7739

E metalorganicsAP@akzonobel.com