

TECHNICAL DATA SHEET

Date of Issue: 2016/09/02

Magnesium Metal, powder

CAS-No.	7439-95-4
EC-No.	231-104-6
REACH No.	01-2119537203-49
Molecular Formula	Mg
Product Number	458180

APPLICATION

As a constituent of light alloys; in pyrotechnics; in metallurgy as deoxidizing and desulfuring agent; for flash bulbs and flares; aluminio-thermic mixtures; intense signal lights; for Grignard reagents in organic synthesis.

SPECIFICATION

Type A

Mg metallic (min. %)	98.0	
Oxides (max. %)	2.0	
Fe (max. %)	0.1	
Apparent density (g/cm ³)	0.7 – 0.8	
Loss in weight (%)	< 0.02	
Acetone extract (%)	< 0.02	
Sieve Analysis	> 315 µm	0 – 20 %
	> 200 µm	60 – 80 %
	> 160 µm	20 – 30 %
	< 160 µm	0 – 12 %

Type B

Mg metallic (min. %)	99.0	
Oxides (max. %)	1.0	
Fe (max. %)	0.1	

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Apparent density (g/cm ³)	0.7 – 0.9	
Loss in weight (%)	< 0.02	
Acetone extract (%)	< 0.02	
Sieve Analysis	> 400 µm	0.0 %
	> 315 µm	max. 10 %
	> 100 µm	90 – 99.5 %
	< 100 µm	max. 0.5 %

Type C

Mg metallic (min. %)	98.0	
Oxides (max. %)	2.0	
Fe (max. %)	0.1	
Apparent density (g/cm ³)	0.5 – 0.6	
Loss in weight (%)	< 0.02	
Acetone extract (%)	< 0.02	
Sieve Analysis	> 160 µm	max. 15 %
	> 100 µm	max. 60 %
	> 71 µm	25 – 75 %
	> 63 µm	min. 25 %
	< 63 µm	min. 10 %

Type D

Mg metallic (min. %)	98.0	
Oxides (max. %)	2.0	
Fe (max. %)	0.1	
Apparent density (g/cm ³)	0.4 – 0.6	
Loss in weight (%)	< 0.02	
Acetone extract (%)	< 0.02	
Sieve Analysis	> 100 µm	max. 10 %
	> 63 µm	max. 60 %
	< 63 µm	min. 30 %

Type F

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Mg metallic (min. %)	99.0	
Oxides (max. %)	1.0	
Fe (max. %)	0.1	
Apparent density (g/cm ³)	0.4 – 0.8	
Loss in weight (%)	< 0.02	
Acetone extract (%)	< 0.02	
Sieve Analysis	> 250 µm	max. 10 %
	< 100 µm	max. 10 %

PHYSICAL PROPERTIES

Appearance	powder
Color	silver-brown
Melting point/ range	651 °C
Boiling point/boiling range	1,107 °C
Density	1.7 g/cm ³ at 20 °C
Bulk density	0.3 - 1 kg/m ³
Water solubility	(practically insoluble)
Molecular weight	24.31 g/mol

HANDLING & STORAGE

Handling	Flammable solid. Contact with water liberates highly flammable gases! Silvery white metal powder, stable in dry atmosphere, slowly oxidizes in moist air, very slow reaction with water at ordinary temperatures. Reacts readily with diluted acids liberating hydrogen and with methyl alcohol at elevated temperature forming magnesium methylate. Strong reducing agent for several metallic and non-metallic oxides. Combines directly with halogens, nitrogen, sulfur and others. Powder is easily ignited and presents a dust explosion hazard. See our safety data sheet! Delivery form: Powder
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TRANSPORT & PACKAGING

UN number 1418

ADR	Class: 4.3	PG: II	Label: 4.3 (4.2)
RID	Class: 4.3	PG: II	Label: 4.3 (4.2)
IMDG	Class: 4.3	PG: II	Label: 4.3 (4.2)
IATA_C	Class: 4.3	PG: II	Packing instruction (cargo aircraft): 490
IATA_P	Class: 4.3	PG: II	Packing instruction (passenger aircraft): 483

Hazard pictograms



Signal Word Danger

H&P Phrases See Safety Data Sheet

Labelling The labelling is according to EU-GHS classification ((EG) 1272/2008) and may vary in other countries. Please refer to the respective Safety Data Sheet for your country.

Packaging

In steel containers of 50 kg, 75 kg and 100 kg.

OTHER INFORMATION

Further Related Safety Data Sheet
Documents

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