



Zirconium metal powder Grade CX aqueous suspension

Article Number	453021
CAS-No.	7440-67-7
Formula	Zr
Applications	For the production of highly reactive and quick fuze compositions in pyrotechnics for use in ammunition, explosives, airbags and safety belt pretensioners; for the manufacture of photographic flash cubes.
Characteristics	Highly flammable solid. Dust explosion hazard. An ultra-fine, high grade zirconium powder which ignites very easily and rapidly burns off at white heat. Highly ignitable product with very short combustion rate. Most ignitable product among the metal powder grades.
Delivery Form	Greyish-black aqueous suspension
Apparent Density	approx. 1.1 g/cm ³
Ignition Point	180 ± 30 °C
Combustion Rate	Chemetall standard: 9.2 ± 4.8 sec/50 cm
Particle Size	min. 99.9 % < 45 µm by sieving APS 1.7 ± 0.5 µm acc. to Blaine
Gain on Ignition	31.7 ± 1.2 % (weight increase by combustion)

Zirconium metal powder Grade CX, aqueous susp.

Typical Analysis	Zr + Hf	total	97.5	± 0.9	%
	Zr + Hf	active	90.2	± 3.6	%
	Hf	approx:	2		% (natural content)
	H	max.	0.2		%
	Fe	max.	0.07		%
	Ca	max	0.05		%

**Recommended
Test Methods** Determination of oxidation value, particle size distribution, average particle size; specific surface area and combustion properties; gravimetric analysis of zirconium, verification of nitrogen content and accompanying impurities by special analytical methods. For specific information on Chemetall standard determination methods see our delivery program.

Handling Keep away from flames, sparks and heat sources; use earth-connected metallic apparatus to avoid sudden ignition by electrostatic discharge; self-ignition is possible; vacuum-drying of suspensions not recommended; wear gloves, a face shield or goggles; in case of fire, cover only with sand, limestone or with a dry extinguishing powder suitable for metal fires class D;

DO NOT USE WATER!

Refer to our material safety data sheet and special precautionary advice for specific safety information!

Packaging Aqueous suspension in PE – bottles with max. 2.5 kg capacity, water content min. 30 %

**Transport
Classification** GGVE, GGVS, RID, ADR: class 4.1, fig. 13 b
IMDG-code: class 4.1 UN-No. 1358, PG. II
ICAO: class 4.1 UN-No. 1358, PG. II/Drill-Code 3L