

TECHNICAL DATA SHEET

Date of Issue: 2016/09/02

Zirconium Hydride, Grade S

CAS-No. 7704-99-6

EC-No. 231-727-3

Molecular Formula ZrH_2

Product Number 453330

APPLICATION

As a getter film in the manufacture of transmitter tubes; as a binding component between grinding agents, carbides, ceramics and metal; as an alloying constituent in powder metallurgy. Applicable as hydrogen source for the foaming of metals.

SPECIFICATION

Zr + Hf	total 97.2 +/- 0.8 %
Hf	min. 0.2 % (natural content)
H	min. 1.9 %
Fe	max. 0.1 %
Si	max. 0.1 %
Cr	max. 0.1 %
Cl	max. 0.02 %

Complies with NAVORD/MIL-Z-21353
Complies with ASTM specification B 349-67

METHOD OF ANALYSIS

Determination of oxidation value, particle size distribution and average particle size; gravimetric analysis of zirconium, determination of hydrogen content and impurities.

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Technical data sheets may change frequently. You can download the latest version from our website www.albemarle-lithium.com. Please contact us at www.albemarle-lithium.com/contact with questions.



PHYSICAL PROPERTIES

Appearance	powder
Color	black to gray
Decomposition temperature	> 400 °C (Decomposes before melting.)
Bulk density	1,000 - 2,000 kg/m ³
Water solubility	(practically insoluble)
Molecular weight	93.24 g/mol
Grain Size	min. 99.9 % < 45 µm by sieving APS 2.6 +/- 0.6 µm acc. to Blaine
Additional Physical Properties	Ignition Point: 250 +/- 50 °C Combustion Rate: 600 +/- 150 sec/50 cm (Albemarle standard) Gain on Ignition: 31.2 +/- 1 % (weight increase by combustion)

HANDLING & STORAGE

Handling	Highly flammable solid. Dust explosion hazard. A fine zirconium hydride powder of exceptional purity; yielding hydrogen by a reversible reaction in vacuum, slowly burning in air. Keep away from flames, sparks and heat sources; use ground-connected metallic apparatus to avoid sudden ignition by electrostatic discharge; 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 safety data sheet and special precautionary advice for specific safety information.
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TRANSPORT & PACKAGING

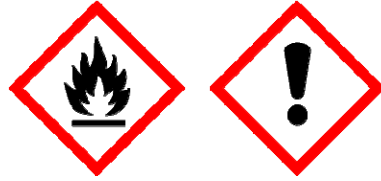
UN number 1437

ADR	Class: 4.1	PG: II	Label: 4.1
RID	Class: 4.1	PG: II	Label: 4.1
IMDG	Class: 4.1	PG: II	Label: 4.1
IATA_C	Class: 4.1	PG: II	Packing instruction (cargo aircraft): 448
IATA_P	Class: 4.1	PG: II	Packing instruction (passenger aircraft): 445

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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

Dry, in tin cans of max. 5 kg capacity.

OTHER INFORMATION

Further Related Documents	Safety Data Sheet
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