

TECHNICAL DATA SHEET

Date of Issue: 2021/07/22

Zirconium Nickel alloy 30/70 A

Product number 10000395, 10000396, 10000397,
10002101

APPLICATION

Zirconium/Nickel alloy powders find application in various pyrotechnic and ordnance areas. They are used in squibs, delay mixtures and initiators.

SPECIFICATION

Auto Ignition Temperature	> 240 °C
Combustion Rate	575 +/- 200 sec/50 cm
Particle Size	min. 99.9 % < 45 µm
Average Particle Size	5 +/- 2 µm
Zr + Hf content	30 +/- 3 %
Ni content	70 +/- 3 %
(Zr + Hf) + Ni content	> 97 %
Fe	max. 0.20 %
Ca	max. 0.15 %
Al	max. 0.15 %
S	max. 0.01 %
Moisture	max. 0.2 %

METHOD OF ANALYSIS

Gravimetric determination of zirconium and nickel. Spectral analysis of accompanying impurities. Measurement of average particle size and combustion properties.

The information presented herein is believed to be accurate and reliable, but is presented without guarantee or responsibility on the part of Albemarle Corporation and its subsidiaries and affiliates. It is the responsibility of the user to comply with all applicable laws and regulations and to provide for a safe workplace. The user should consider any health or safety hazards or information contained herein only as a guide, and should take those precautions which are necessary or prudent to instruct employees and to develop work practice procedures in order to promote a safe work environment. Further, nothing contained herein shall be taken as an inducement or recommendation to manufacture or use any of the herein materials or processes in violation of existing or future patent.

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
Colour	grey to black
Melting point/range	1,140 - 1,650 °C
Bulk density	2,000 - 3,000 kg/m ³
Water solubility	(practically insoluble)

HANDLING & STORAGE

Handling	Highly flammable solid. Dust explosion hazard. Powders of these alloys are highly flammable and burn with an intense heat. Keep away from flames, sparks and heat sources. Use ground connected metallic apparatus to avoid sudden ignition by electrostatic discharge. In case of fire cover with dry sand or dry chemical/dolomite (powdered limestone). Never extinguish with water, carbon dioxide, or halocarbon. See our material safety data sheet and special precautionary advice for more information on safety.
Storage	Store in tightly closed containers.

TRANSPORT & PACKAGING

UN number 3189

ADR	Class: 4.2	PG: II	Label: 4.2
RID	Class: 4.2	PG: II	Label: 4.2
IMDG	Class: 4.2	PG: II	Label: 4.2
IATA_C	Class: 4.2	PG: II	Packing instruction (cargo aircraft): 470
IATA_P	Class: 4.2	PG: II	Packing instruction (passenger aircraft): 467

The information presented herein is believed to be accurate and reliable, but is presented without guarantee or responsibility on the part of Albemarle Corporation and its subsidiaries and affiliates. It is the responsibility of the user to comply with all applicable laws and regulations and to provide for a safe workplace. The user should consider any health or safety hazards or information contained herein only as a guide, and should take those precautions which are necessary or prudent to instruct employees and to develop work practice procedures in order to promote a safe work environment. Further, nothing contained herein shall be taken as an inducement or recommendation to manufacture or use any of the herein materials or processes in violation of existing or future patent.

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

Passenger aircraft: tin cans of 2.5 kg. Cargo aircraft only: tin cans of 5 kg. Other packaging sizes on request.

OTHER INFORMATION

Further Related Documents	Safety Data Sheet
---------------------------	-------------------

The information presented herein is believed to be accurate and reliable, but is presented without guarantee or responsibility on the part of Albemarle Corporation and its subsidiaries and affiliates. It is the responsibility of the user to comply with all applicable laws and regulations and to provide for a safe workplace. The user should consider any health or safety hazards or information contained herein only as a guide, and should take those precautions which are necessary or prudent to instruct employees and to develop work practice procedures in order to promote a safe work environment. Further, nothing contained herein shall be taken as an inducement or recommendation to manufacture or use any of the herein materials or processes in violation of existing or future patent.