TECHNICAL DATA SHEET

Date of Issue: 2017/01/09

Zinc Chloride, typ. 25 % solution in 2-Methyl-THF

CAS-No. 7646-85-7

EC-No. 231-592-0

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REACH No. 01-2119472431-44

Molecular Formula ZnCl₂

Product Number 408521

APPLICATION

The use of a 'ready-made' 2-Methyl-THF solution avoids the handling of the very hygroscopic and dusty ZnCl2 powder.

The ZnCl2 / 2-Methy-THF solution was developed mainly for the application in organic synthesis, e.g.:

- -transmetallation of organomagnesium and organolithium compounds to the corresponding zinc reagents for C-C coupling reactions (Negishi protocol).
- -formation of zinc enolates by deprotonation of carbonyl compounds using standard bases followed by transmetallation with ZnCl2.
- -catalysis of cycloaddition reactions e.g. Diels-Alder reactions of electron rich dienes with carbonyl compounds.
- -preparation of selective reducing agents, e.g. Zn(BH4)2 by reaction of NaBH4 with ZnCl2.

Reference:

McGarvey, G.J. in Encyclopedia of Reagents for Organic Synthesis, Paquette, L.A., Ed. John Wiley and Sons, New York (1995), Vol. 8, 5544.

FURTHER INGREDIENTS

2-Methyltetrahydrofuran

CAS-No. 96-47-9 EC-No. 202-507-4

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.



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SPECIFICATION

Zinc Chloride	23 - 27 %	
Water content	< 0.14 %	

METHOD OF ANALYSIS

Determination of assay by argentometric titration of chloride, determination of water by Karl-Fischer titration.

PHYSICAL PROPERTIES

Appearance clear or light turbid liquid

Color tan to pink

Crystallization temperature

< -10 °C

Flash point -10 °C (2-Methyltetrahydrofuran)

Boiling point/boiling

range

78 °C (2-Methyltetrahydrofuran)

Density ca. 1.07 g/cm3 at 20 °C

Molecular weight 136.28 g/mol

Thermal Stability Crystallization below -10 °C

HANDLING & STORAGE

Handling Under exclusion of air and humidity stable over practically unlimited periods. 2-

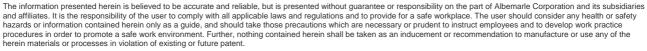
Methyl-THF can form explosive peroxides in contact with air. Storage and handling under inert gas is recommended. Pay attention to official safety regulations (see

also 'Transport regulations' and 'Marking').

Storage As ZnCl2 tends to crystallize from the solution material should be stored above 0

°C. Pay attention to official safety regulations (see also: "Transport regulations" and

"Marking").





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TRANSPORT & PACKAGING

UN number 2924

ADR	Class: 3	PG: II	Label: 3 (8)
RID	Class: 3	PG: II	Label: 3 (8)
IMDG	Class: 3	PG: II	Label: 3 (8)
IATA_C	Class: 3	PG: II	Packing instruction (cargo aircraft): 363
IATA_P	Class: 3	PG: II	Packing instruction (passenger aircraft): 352

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

Glass bottles of 100, 250, 500, and 1,000 ml. Steel bottles with volumes of 7.4, 27, 127 or 450 l. Steel drums up to 200 l. For safety reasons these are filled to a maximum of 90 %.

OTHER INFORMATION

Further Related Documents

Safety Data Sheet

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