

Material Safety Data Sheet

1. Product & Company Identification

Product name:	Lithium Metal Battery, non-rechargeable
Chemical system:	Lithium and Thionyl Chloride (Li- SOCl ₂ Battery)

BN	Size	Voltage	Capacity	Energy content
2526461	2/3 AA	3.6 V	1600 mAh	5.76 Wh
2526462	AA	3.6 V	2400 mAh	8.64 Wh
2533751	1/2 AA	3.6 V	1200 mAh	4.32 Wh
2542822	AA	3.6 V	2400 mAh	8.64 Wh
2542824	D	3.6 V	19000 mAh	69.4 Wh

Manufacturer:	Conrad Electronic SE
Address:	Klaus-Conrad-Str. 1, D-92240 Hirschau
Telephone:	+49 (0) 9604 / 40 - 8988
Date of issue:	01.08.2022

2. Composition/information on ingredients

Ingredient	Percent	CAS Index	Molecular formula
Carbon	28.6%	7440-44-0	C
Lithium	1.0 %	7439-93-2	Li
Solvent	26.3%	7719-09-7	SOCl ₂
Lithium Salt	5.9%	N/A	N/A
Fiberglas	2.7%	N/A	N/A
Stainless Steel	32.2%	7439-89-6	Fe

Remark: The weight of metallic lithium per battery is <1 g.

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3. Hazards identification

Routes of Entry:

Inhalation - Yes

Skin - Yes

Ingestion – Yes

Health Hazards (Acute and Chronic):

These chemicals are contained in a sealed can. Risk of exposure occurs only if the battery is mechanically or electrically abused. The most likely risk is an acute exposure when the gas release vent works. Organic solvent has slight toxicity and can irritate skin and eyes. Lithium salt is irritating to skin, eyes and mucous membranes and should be avoided.

Carcinogenicity:

NTP: None

IARC Monograph: None

OSHA Regulated: None

Medical Conditions Generally Aggravated by Exposure:

An acute exposure will not generally aggravate any medical condition.

4. First aid measures

After skin contact:

In case of skin contact with contents of battery, flush immediately with water. If irritation persists, get medical help.

After eye contact:

For eye contact, flush with copious amounts of water for 15 minutes. Do not inhale leaked material. If irritation persists, get medical help.

5. Fire-fighting measures

Extinguishing Media:

CO₂

Flammable Limits:

Not available

6. Accidental release measures

The preferred response is to leave the area and allow the batteries to cool and the vapors to dissipate. Avoid skin and eye contact or inhalation of vapors. Remove spilled liquid with absorbent and incinerate.

7. Handling and storage

Avoid mechanical or electrical abuse. Batteries may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity. Do not recharge.

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8. Exposure controls/personal protection

Specific control parameter

Personal protective equipment:

Respiratory protection:

Not necessary under conditions of normal use.

Ventilation:

Not necessary under conditions of normal use.

Protective Gloves:

Not necessary under conditions of normal use.

Eye protection:

Not necessary under conditions of normal use.

Other Protective ((lothing or Equipment):

Not necessary under conditions of normal use.

9. Physical and chemical properties

Specific Gravity (H₂O=1): C: 0.667

Melting Point: (°C): C decomposes at 3500 °C

C is a black, odorless powder.

Lithium is a soft, silvery metal.

Organic solvent is an odorless, colorless or light yellow liquid.

Lithium salt is a white, crystalline and odorless powder.

10. Stability and reactivity

Stability:

Stable

Conditions to Avoid:

Do not heat, disassemble or charge.

Hazardous Decomposition or By-products:

N/A

Hazardous polymerization:

Hazardous polymerization: will not occur.

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11. Toxicological information

Acute toxicity:

Organic solvent

Further toxicological information:

Lithium

12. Ecological information

Ecotoxic effects:

N/A

Further ecological data:

N/A

13. Disposal considerations

We encourage battery recycling. Our Li-SOCI₂ batteries are recyclable.

Li-SOCI₂ batteries must be handled in accordance with all applicable state and federal laws and regulations.

DO NOT RECHARGE, disassemble, short, or subject battery to temperatures in excess of 100 °C (212 °F). Do not use in combination with fresh and used lithium batteries neither with other type of battery.

14. Transport information

International transport regulations:

1. International Air Transport Association (IATA) pursuant to PI 968 Section II.
2. International Maritime Dangerous Goods Code (IMDG) pursuant to Special Provisions A88, A99, A154 and A164.

The batteries pass the tests defined in UN model regulation section 38.3 and the UN number is UN3090. Such batteries transported in accordance with Section II of Packing Instruction 968 must be labeled with the CARGO AIRCRAFT ONLY label.

If the batteries are used to construct battery packs, the assembler of that pack is responsible to ensure the battery has been tested in accordance with the requirements contained in the UN Model Regulations, Manual of Test and Criteria. Part III, subsection 38.3.

15. Regulatory information

The batteries have been classified as non-dangerous goods by the China Department of Transportation and the major international regulatory bodies and are therefore not regulated.

16. Other information

The information above is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. We makes no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall we be liable for Any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, however arising from using the above information.