

Material Safety Data Sheet

1. Product & Company Identification

Product name:	DC Outdoor power station with rechargeable Li-Ion Battery
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Item no.	Voltage	Capacity	Energy content
2859535	3.7 V	15000 mAh	55.5 Wh

Manufacturer:	Conrad Electronic SE
Address:	Klaus-Conrad-Str. 1, D-92240 Hirschau
Telephone:	+49 (0) 9604 / 40 - 8988
Date of issue:	08.04.2023

2. Hazards Identification

Preparation hazards and classification

Not dangerous with normal use. Do not dismantle, open or shred the DC OUTDOOR POWER STATION ingredients contained within or their ingredients products could be harmful.

Appearance, Color, and Odor

Solid object with no odor, no color.

Primary Route(s) of Exposure

These chemicals are contained in a sealed enclosure. Risk of exposure occurs only if the internal cell is mechanically, thermally or electrically abused to the point of compromising the enclosure. If this occurs, exposure to the electrolyte solution contained within can occur by Inhalation, Ingestion, Eye contact and Skin contact

Potential Health Effects:

ACUTE (short term):

see Section 8 for exposure controls. In the event that this internal cell has been ruptured, the electrolyte solution contained within the DC OUTDOOR POWER STATION would be corrosive and can cause burns.

Inhalation:

Inhalation of materials from a sealed DC OUTDOOR POWER STATION is not an expected route of exposure.

Ingestion:

Swallowing of materials from a sealed DC OUTDOOR POWER STATION is not an expected route of exposure.

Skin:

Contact between the DC OUTDOOR POWER STATION and skin will not cause any harm. Skin contact with contents of an open internal cell can cause severe irritation or burns to the skin.

Eye:

Contact between the DC OUTDOOR POWER STATION and the eye will not cause any harm. Eye contact with contents of an open internal cell can cause severe irritation or burns to the eye.

CHRONIC (long term):

See Section 11 for additional toxicological data

Reported as carcinogen

Not applicable

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3. Composition/Information on Ingredients

Classification of the DC OUTDOOR POWER STATION: mixture

Chemical Name	CAS Number	Weight %
Lithium Cobalt Oxide	12190-79-3	15-40
Aluminum	7429-90-5	5-10
Graphite	7782-42-5	10-30
Copper	7440-50-8	7-13
Phosphate(1-), hexafluoro- lithium	21324-40-3	10-30
Nickel	7440-02-0	1-5

Note: CAS number is Chemical Abstract Service Registry Number.

4. First-aid Measures

Inhalation

If contents of an opened internal cell are inhaled, remove source of contamination or move victim to fresh air. Obtain medical advice.

Skin contact

If skin contact with contents of an open internal cell occurs, as quickly as possible remove contaminated clothing, shoes and leather goods. Immediately flush with lukewarm, gently flowing water for at least 30 minutes. If irritation or pain persists, seek medical attention. Completely decontaminate clothing, shoes and leather goods before reuse or discard.

Eye contact

If eye contact with contents of an open internal cell occurs, immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes while holding the eyelids open. Neutral saline solution may be used as soon as it is available. Take care not to rinse contaminated water into the unaffected eye or onto face. Quickly transport victim to an emergency care facility.

Ingestion

If ingestion of contents of an open internal cell occurs, DO NOT INDUCE VOMITING. Have victim rinse mouth with water again. Quickly transport victim to an emergency care facility.

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5. Fire-fighting Measures

Flammable Properties

In the event that this DC OUTDOOR POWER STATION has been ruptured, the electrolyte solution contained within the Internal cell would be flammable. Like any sealed container, DC OUTDOOR POWER STATION may rupture when exposed to excessive heat; this could result in the release of flammable or corrosive materials.

Flammability hazard:

Excessive heat can cause inclusions to escape.

Combustion products and internal substances in contact with air and water products include:

CO, CO₂, HF, phosphorus fluoride oxide, metal oxides of lithium, other irritant and toxic gases.

Extinguishing Media

Use extinguishing media suitable for the materials that are burning, Such as dry powder, CO₂, soil sand and so on.

As for any fire, evacuate the area and fight the fire from a safe distance. Wear a pressure-demand, self-contained breathing apparatus and full protective gear. Fight fire from a protected location or a safe distance.

6. Accidental Release Measures

Personal Precautions, protective equipment, and emergency procedures

Restrict access to area until completion of clean-up. Do not touch the spilled material. Wear adequate personal protective equipment as indicated in Section 8.

Environmental Precautions

Prevent material from contaminating soil and from entering sewers or waterways.

Methods and materials for Containment

Stop the leak if safe to do so. Contain the spilled liquid with dry sand or earth. Clean up spills immediately.

Methods and materials for cleaning up

Absorb spilled material with an inert absorbent (dry sand or earth). Scoop contaminated absorbent into an acceptable waste container.

Collect all contaminated absorbent and dispose of according to directions in Section 13. Scrub the area with detergent and water; collect all contaminated wash water for proper disposal.

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7. Handling and Storage

Handling

Don't handle DC OUTDOOR POWER STATION with metalwork. Do not open, disassemble, crush or burn DC OUTDOOR POWER STATION. Ensure good ventilation/exhaustion at the workplace.

Prevent formation of dust.

Information about protection against explosions and fires: Keep ignition sources away - Do not smoke.

Do not swallow.

Storage

If the DC OUTDOOR POWER STATION is subject to storage for such a long term as more than 3 months, it is recommended to recharge the DC OUTDOOR POWER STATION periodically.

And recommended at 0°C~35°C, 45 to 85% RH for long period storage.

Do not store DC OUTDOOR POWER STATION haphazardly in a box or drawer where they may short-circuit each other or be short-circuited by other metal objects.

Keep out of reach of children.

Do not expose DC OUTDOOR POWER STATION to heat or fire. Avoid storage in direct sunlight.

Do not store DC OUTDOOR POWER STATION together with oxidizing and acidic materials.

8. Exposure Controls and Personal Protection

Engineering Controls

Use local exhaust ventilation or other engineering controls to control sources of dust, mist, fumes and vapor.

Keep away from heat and open flame. Store in a cool, dry place.

Personal Protective Equipment

Respiratory Protection:

Not necessary under normal conditions.

Skin and body Protection:

Not necessary under normal conditions, Wear neoprene or nitrile rubber gloves if handling an open or leaking DC OUTDOOR POWER STATION.

Hand protection:

Wear neoprene or natural rubber material gloves if handling an open or leaking DC OUTDOOR POWER STATION.

Eye Protection:

Not necessary under normal conditions, Wear safety glasses if handling an open or leaking DC OUTDOOR POWER STATION.

Other Protective Equipment

Have a safety shower and eye wash fountain readily available in the immediate work area.

Hygiene Measures

Do not eat, drink, or smoke in work area.

Maintain good housekeeping.

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9. Physical and Chemical Properties

Physical State

Form:	Solid
Shape:	Cuboid
Color:	Specific
Odor:	Odorless
pH, with indication of the concentration	Not applicable
Melting point/freezing point	No relevant informationAvailable
Boiling Point	No relevant informationAvailable
Flash Point	No relevant informationAvailable
Upper/lower flammability or explosive limits	No relevant informationAvailable
Vapor Pressure	Not applicable
Vapor Density (Air = 1)	Not applicable
Density/relative density	No relevant informationAvailable
Solubility in Water	Insoluble
Auto-ignition temperature	130°C
Decomposition temperature	No relevant informationAvailable
Evaporation rate	No relevant informationAvailable
Flammability (soil, gas)	No relevant informationAvailable
Viscosity	Not applicable

10. Stability and Reactivity

Stability

The DC OUTDOOR POWER STATION is stable under normal conditions.

Conditions to Avoid (e.g. static discharge, shock or vibration)

Do not subject DC OUTDOOR POWER STATION to mechanical shock.

Vibration encountered during transportation does not cause leakage, fire or explosion.

Do not disassemble, crush, short or install with incorrect polarity.

Avoid mechanical or electrical abuse.

Incompatible Materials

No relevant information available

Hazardous Decomposition Products

This material may release toxic fumes if burned or exposed to fire

Possibility of Hazardous Reaction

No relevant informationAvailable

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11. Toxicological Information

Irritation

Risk of irritation occurs only if the internal cell is mechanically, thermally or electrically abused to the point of compromising the enclosure. If this occurs, irritation to the skin, eyes and respiratory tract may occur.

Sensitization

No relevant information available

Neurological Effects

No relevant information available

Reproductive Toxicity

No relevant information available

Mutagenicity (Genetic Effects)

No relevant information available

12. Ecological Information

General note:

Water hazard class 1(Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Dispose of batteries away from fire, rain and snow.

Anticipated behavior of a chemical product in environment/possible environmental impact/ecotoxicity

No relevant information available

Mobility in soil

No relevant information available

Persistence and Degradability

No relevant information available

Bioaccumulation potential

No relevant information available

Other Adverse Effects

No relevant information available

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13. Disposal Considerations

Disposal

DC OUTDOOR POWER STATION cannot be directly treated as ordinary garbage.

Product disposal recommendation:

Observe local, state and federal laws and regulations.

Packaging disposal recommendation:

Be aware discarded DC OUTDOOR POWER STATION may cause fire, tape the DC OUTDOOR POWER STATION terminals to insulate them. Don't disassembly the DC OUTDOOR POWER STATION. Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local, state and federal laws and regulations.

14. Transport Information

The DC OUTDOOR POWER STATION (NE-3705S) had passed the UN 38.3 test and also complies with the United Nations Recommendations on the Transport of Dangerous Goods; IATA Dangerous Goods regulations, and applicable U.S. DOT regulations for the safe transport of DC OUTDOOR POWER STATION.

In the IATA Dangerous Goods Regulations, DC OUTDOOR POWER STATION is divided into PI965: lithium ion cell/battery (UN Number: UN3480).

The DC OUTDOOR POWER STATION is transported according to the NEW PACKING INSTRUCTION 965 Section IB of IATA DGR 64th edition.

DC OUTDOOR POWER STATION can be treated as "Non-dangerous goods" under the United Nations Recommendations on the Transport of Dangerous Goods, SP188, provided that packaging is strong and prevent the products from short-circuit.

UN Number: UN3480

The mode of transportation: Air transportation, Sea transportation, Road transportation, Railway transportation.

Label for Air transportation: Lithium battery handling Label, and Hazard Class 9 label and Cargo Aircraft only.

Label for Sea transportation, Road transportation, Railway transportation: Lithium battery handling Label.

International transport of lithium batteries is regulated by the following organizations:

- The International Civil Aviation Organization (ICAO) Technical Instructions.
- The International Air transport Association (IATA) Dangerous Goods Regulations. 64th edition.
- The International Maritime Dangerous Goods (IMDG) Code. IMDG(40-20)

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15. Regulatory Information

«Dangerous Goods Regulations»

«International Maritime Dangerous Goods»

«United Nations Recommendations on the Transport of Dangerous Goods Regulations»

«Classification and code of Dangerous Goods»

«Occupational Safety and Health Act» (OSHA)

«Toxic Subatance Control Act» (TSCA)

«Superfund Amendments and Reauthorization Act Title III (302/311/312/313) »

In according with United Nations, country, and local laws.

16. Other Information

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of ability 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. Although reasonable precautions have been taken in the preparation of the data contained herein, it is offered solely for your information, consideration and investigation.