

Section 1. Product and Company Identification.

1.1 Model Number; 1.2 Description; CP18VLDBP v1 CORDLESS POWER TOOL BATTERY 18V 1.5Ah LI-ION Battery: 18 Volt. 1.5Ah. 350 grams.

1.3 Manufacturer;

Sealey Group. Kempson Way, Bury St. Edmunds, Suffolk. IP32 7AR

1.4 Emergency telephone number; 44 (0) 1284 757 500 (Office Hours)

Date of source compilation; 1 March 2016

Section 2. Hazards Identification.

Invasion routes; eyes, skin contact, ingestion.

Health Hazard; Harmful if swallowed. Safe under normal conditions of use. Contents are non-reactive when the battery integrity and seals remain intact. DO NOT OPEN or DISMANTLE. DO NOT EXPOSE TO FIRE or NAKED FLAME. Burn / Explosion / Fire risks; do not mix with varying chemistries, sizes & types of battery. Do not crush or incinerate.

Environmental hazard; the internal electrolyte may cause adverse environmental impact.

Danger of fire and explosion; risk is increased by high temperature and short circuit.



Section 3. Substances.

| 3.1 Chemical Name (substance) | 3.1 CAS No. | | Classification | |
|-------------------------------|-------------|-------------------|---------------------------------|-------------------|
| | | 3.2 Concentration | Hazard Class & Category Code | Hazard Statements |
| Lithium Cobalt Oxide | 12190-79-3 | 25 - 40% | - | - |
| Graphite Powder | 7782-42-5 | 11 – 21% | - | - |
| Organic Electrolyte | - | 8 - 18% | - | - |
| Copper | 7440-50-8 | 6 - 16% | - | - |
| Aluminium | 7429-90-5 | 2 – 6% | Water-react. 2 | H261 |
| | | | Flam.Sol. 3 | H228 |
| | | | F; R15 | |
| | | | R10 | |
| Lithium Hexafluorophosphate | 21324-40-3 | 1-4% | - | - |

For full text of Phrases and Statements, see Section 16.



Section 4. First Aid Measures.

Lithium Batteries do not pose a risk to eyes or skin under normal circumstances. In the case of contact with internal substances;

4.1 Description of first aid measures

Inhalation

If breathing difficulties develop, remove the person to fresh air.

Loosen close fitting clothing.

Ensure that person is warm.

If mouth to mouth resuscitation is necessary, the person conducting this must takes steps to reduce the risk of contamination from toxic / corrosive substances that may be present.

Skin Contact

Remove contaminated clothing.

Flush affected area(s) with copious amounts of water for at least 15 minutes.

Get medical attention.

Eye Contact

Irrigate eyes with water for at least 15 minutes while raising eyelid(s).

Get medical attention.

Ingestion

If swallowed, do not induce vomiting. Give large amounts of water but *do not* do this is casualty is unconscious.

Protection of First Aiders:

Use personal protective equipment. Avoid contact with skin, eyes and clothing.

4.2. Most important symptoms and effects, both acute and delayed No information available.

4.3. Indication of any immediate medical attention and special treatment needed No information available.

Section 5. Fire Fighting Measures.



Recommended practice;

Always ensure that Personal Protection Equipment (PPE) is used.

If a battery becomes hot, immediately remove it from flammable materials and place on a non-combustible surface. If possible, place a disintegrating device outdoors and allow it to burn out.

Fire condition; NB; ensure that electrical devices are turned off. Prevent electric shock risk.

If any batteries are burning, water may not extinguish them, but will cool the adjacent batteries and control the spread of fire.

5.1. Extinguishing media

Extinguishers;

Only use Graphite based CO₂ (Carbon dioxide), Dry Powder or Foam. Copper powder fire extinguishers, sand, dry ground dolomite or soda ash may also be used. These materials act as smothering agents.

If possible, use a LITH-X (powdered graphite) extinguisher on small fires. This material acts as a smothering agent. A sodium chloride powder extinguisher IS NOT suitable for use on Lithium Batteries.

It may not be possible to extinguish burning lithium batteries. Burning batteries will burn themselves out. <u>Do not use water</u> with **LITH-X (powdered graphite)**.

- If a LITH-X (powdered graphite) extinguisher is not available;
- Use copious amounts of water in a fine spray to swamp a fire.

Continue to use copious amounts of water until the fire is extinguished and the batteries are cooled. NB: **Lithium reacts with water to form Hydrogen.** The fire will not be extinguished immediately. Be aware of the increased risk of explosion.

NB; fire-fighting water runoff may be corrosive / toxic and may cause adverse environmental impact.

5.2. Special hazards arising from the substance or mixture

Hazard characteristics; thermal decomposition can lead to the release of toxic fumes. **Hazardous combustion products;** carbon dioxide, carbon monoxide, lithium oxide fumes.

5.3. Advice for fire-fighters

Fragments may be ejected from a fire.

Fire Fighters should wear self-contained breathing apparatus and appropriate Personal Protective Equipment.

Section 6. Accidental Release Measures.



6.1. Personal precautions, protective equipment and emergency procedures In the event of battery rupture and leakage,

- Ventilate the area.
- Wear appropriate protective clothing (see Section 7) to prevent eye and skin contact and to prevent inhalation of vapours or fumes.
- Remove sources of ignition.

6.2. Environmental precautions No information available.

6.3. Methods and material for containment and cleaning up
Absorb released materials with inert absorbent (dry sand or soil).
Collect released materials into sealed plastic bag or container.
Prevent material from contaminating soil or entering sewers or waterways.
Do not dispose of released materials with domestic waste
Do not allow product to enter ground water, water course or sewerage system.
Dispose of released materials in accordance with local authority regulations.

6.4. Reference to other sections

See Section 7 for information on Safe Handling

See Section 8 for information of Personal Protective Equipment.

See Section 13 for information on disposal.

Section 7. Handling and Storage.

7.1. Precautions for safe handling

Never dismantle or modify a battery.

Do not short circuit a battery. A short circuit causes heating and can lead to ignition of surrounding materials. Physical contact with a short-circuited battery can cause skin burn.

7.2. Conditions for safe storage, including any incompatibilities

Always store batteries in an appropriate container to prevent contact with conductive materials. Do not allow contact with water.

Do not allow contact with water.

Store in original container. Keep container tightly closed. Store in a dry, cool place.

Store at 20 °C (68°F); room temperature

Store away from ignition sources, heat, and incompatible materials.

Intended for use as a power tool battery for Model Number identified in 1.1 with Description stated in 1.2.



Section 8. Exposure Controls/Personal Protection.

8.1. Control parametersIn the event of battery rupture and leakage:Ventilate the area.Remove sources of ignition.

8.2. Exposure controls The use of Personal Protective Equipment (PPE) is not necessary under conditions of normal use. If handling a leaking or ruptured battery, ensure that the following Personal Protective Equipment (PPE) is used.

Eye/Face Protection

Chemical grade full face shield

Skin Protection

Acid resistant, natural rubber or neoprene gloves. Protective rubber apron Appropriate Personal Protection with long sleeves and long trousers.

Respiratory Protection

Acid gas filter mask or self-contained breathing apparatus.

Section 9. Physical and Chemical Properties.

9.1. Information on basic physical and chemical properties

The following information is not a technical specification or sales specification.

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|--|--------------------------------------|--|--|--|
| (a) Appearance: | Cylindrical Shae | | | |
| (b) Odour: | If leaking, smells of medical ether. | | | |
| (c) Odour threshold; | No information available. | | | |
| (d) pH: | No information available. | | | |
| (e) Melting point/freezing point; | No information available. | | | |
| (f) Initial boiling point and boiling range; | No information available. | | | |
| (g) Flash point; | No information available. | | | |
| (h) Evaporation rate; | No information available. | | | |
| (i) Flammability (solid, gas); | No information available. | | | |
| (j) Upper/lower flammability or explosive limits; | No information available. | | | |
| (k) Vapour pressure; | No information available. | | | |
| (I) Vapour density; | No information available. | | | |
| (m) Relative density; | No information available. | | | |
| (n) Solubility (ies); | No information available. | | | |
| (o) Partition coefficient: n-octanol/water; | No information available. | | | |
| (p) Auto-ignition temperature; | No information available. | | | |
| (q) Decomposition temperature; | No information available. | | | |
| (r) Viscosity; | No information available. | | | |
| (s) Explosive properties; | No information available. | | | |
| (t) Oxidising properties. | No information available. | | | |
| | | | | |

9.2 Other information

Section 10. Stability and Reactivity.



| 10.1. Reactivity: | No information available. |
|--|--|
| 10.2. Chemical stability: | Product is stable under conditions described in Section 7. |
| 10.3. Possibility of hazardous reactions: | No information available. |
| 10.4. Conditions to avoid: | Heat above 70°C or incinerate. Deformation. Mutilate. Crushing. |
| | Disassemble. Overcharge. Short circuit. Expose over a long period to humid conditions. |
| 10.5. Incompatible materials: | Oxidizing agents, alkalis, water. |
| 10.6. Hazardous decomposition products: | Toxic fumes, peroxides. |

Section 11. Toxicological Information.

11.1. Information on toxicological effects

Potential health risks;

Eye; Contact with battery contents may cause severe irritation and burns. Eye damage is possible.

Skin; Contact with battery contents may cause severe irritation and burns.

Absorption through the skin will cause localized inflammation.

Ingestion; may cause severe and permanent damage to the digestive tract. May cause circulatory system failure. Contents of an open battery can cause serious chemical burns to the mouth, oesophagus and gastrointestinal tract. **Inhalation**; Inhalation of vapours or fumes released due to heat or leaking batteries may cause respiratory irritation. Irritation may lead to chemical pneumonitis.

Inhalation can produce chronic productive cough and shortness of breath.

Section 12. Ecological Information.

When properly used and disposed of correctly, the battery does not present environmental hazard. Do not release internal components into water ways, wastewater or ground water.

Section 13. Disposal Considerations.

13.1. Waste treatment methods

Disposal of the battery must be in accordance with local authority regulation requirements for hazardous waste treatment and hazardous waste transportation.

The battery should be completely discharged prior to disposal and the terminals taped or capped to prevent short circuit.

Do not dispose of batteries at landfill sites.

Do not incinerate batteries.

Section 14. Transport Information.



| ADR. International Carriage of Dangerous Good 14.1. UN number | UN 3480 | | | |
|--|---|---|-------------------|--|
| 14.2. Name and Description | Lithium ion batteries | | | |
| • | Label | 9 | 9 | |
| | Special Provisions | 188 230 310 348 376 377 636 | | |
| | Limited Quantities | 0 | | |
| | Excepted Quantities | EO | | |
| | Packing Instructions | P903 P908 P909 LP903 LP904 | | |
| | Special Packaging Provisions | | - | |
| 14.2 Transport bazard class(os) | Class | 9 | | |
| 14.3. Transport hazard class(es) | Classification Code | 9 M4 | | |
| | | | | |
| | Transport Category | 2 | | |
| | Tunnel restriction code | E | | |
| 14.4. Packing group | - | | | |
| 14.5. Environmental hazards | Does not present an environmental hazard. | | | |
| 14.6. Special precautions for user | No special precautions necessary. | | | |
| IATA. International Air Transport Association. | | | | |
| 14.1. UN number | UN 3480 | | | |
| 14.2. UN Proper Shipping Name/Description | Lithium ion batteries | | | |
| | Hazard Label. | | Miscellaneous | |
| | Excepted Quantity | | EO | |
| | Packaging Instructions Passer | nger | 965 Section IB | |
| | Ltd Qt | - | Forbidden | |
| | Cargo | y | 965 Section IB | |
| | ERG C | odo | 9F | |
| | | Jue | A88 A99 A154 A164 | |
| | Special Provisions | | A183 | |
| 14.3. Transport hazard class(es) | Class or Division | | 9 | |
| | | | 9 | |
| 14.4. Packing group | - Dess not avecant on any income | | | |
| | Does not present an environmental hazard. | | | |
| 14.5. Environmental hazards | - | | | |
| 14.5. Environmental hazards14.6. Special precautions for user | No special precautions necessa | | | |
| | No special precautions necess | | | |
| 14.6. Special precautions for user | No special precautions necess | | | |
| 14.6. Special precautions for user<u>IMDG. International Maritime Dangerous Good</u>14.1. UN number | No special precautions necessa | | | |
| 14.6. Special precautions for user <u>IMDG. International Maritime Dangerous Good</u> | No special precautions necessa ds. UN 3480 Lithium ion batteries | ary. | 48 957 | |
| 14.6. Special precautions for user<u>IMDG. International Maritime Dangerous Good</u>14.1. UN number | No special precautions necessa ds. UN 3480 Lithium ion batteries Special Provisions | ary. 188 230 310 3 | 48 957 | |
| 14.6. Special precautions for user<u>IMDG. International Maritime Dangerous Good</u>14.1. UN number | No special precautions necessa ds. UN 3480 Lithium ion batteries Special Provisions Limited Quantities | ary. 188 230 310 3 0 | 48 957 | |
| 14.6. Special precautions for user<u>IMDG. International Maritime Dangerous Good</u>14.1. UN number | No special precautions necessa ds. UN 3480 Lithium ion batteries Special Provisions Limited Quantities Excepted Quantities | ary. 188 230 310 3 0 E0 | 48 957 | |
| 14.6. Special precautions for user<u>IMDG. International Maritime Dangerous Good</u>14.1. UN number | No special precautions necessa ds. UN 3480 Lithium ion batteries Special Provisions Limited Quantities Excepted Quantities Packaging Instructions | ary. 188 230 310 3 0 | 48 957 | |
| 14.6. Special precautions for user <u>IMDG. International Maritime Dangerous Good</u> 14.1. UN number 14.2. UN proper shipping name | No special precautions necessa ds. UN 3480 Lithium ion batteries Special Provisions Limited Quantities Excepted Quantities Packaging Instructions Packing Provisions | ary. 188 230 310 3 0 E0 P903 - | 48 957 | |
| 14.6. Special precautions for user<u>IMDG. International Maritime Dangerous Good</u>14.1. UN number | No special precautions necessa ds. UN 3480 Lithium ion batteries Special Provisions Limited Quantities Excepted Quantities Packaging Instructions Packing Provisions Class or Division | ary. 188 230 310 3 0 E0 | 48 957 | |
| 14.6. Special precautions for user <u>IMDG. International Maritime Dangerous Good</u> 14.1. UN number 14.2. UN proper shipping name 14.3. Transport hazard class(es) | No special precautions necessa ds. UN 3480 Lithium ion batteries Special Provisions Limited Quantities Excepted Quantities Packaging Instructions Packing Provisions Class or Division Subsidiary Risk(s) | ary. 188 230 310 3 0 E0 P903 - | 48 957 | |
| 14.6. Special precautions for user <u>IMDG. International Maritime Dangerous Good</u> 14.1. UN number 14.2. UN proper shipping name 14.3. Transport hazard class(es) 14.4. Packing group | No special precautions necessa ds. UN 3480 Lithium ion batteries Special Provisions Limited Quantities Excepted Quantities Packaging Instructions Packing Provisions Class or Division Subsidiary Risk(s) II | ary. 188 230 310 3 0 E0 P903 - 9 - | 48 957 | |
| 14.6. Special precautions for user <u>IMDG. International Maritime Dangerous Good</u> 14.1. UN number 14.2. UN proper shipping name 14.3. Transport hazard class(es) 14.4. Packing group 14.5. Environmental hazards | No special precautions necessa ds. UN 3480 Lithium ion batteries Special Provisions Limited Quantities Excepted Quantities Packaging Instructions Packing Provisions Class or Division Subsidiary Risk(s) II Does not present an environm | ary. 188 230 310 3 0 E0 P903 - 9 - ental hazard | 48 957 | |
| 14.6. Special precautions for user <u>IMDG. International Maritime Dangerous Good</u> 14.1. UN number 14.2. UN proper shipping name 14.3. Transport hazard class(es) 14.4. Packing group 14.5. Environmental hazards 14.6. Special precautions for user | No special precautions necessa ds. UN 3480 Lithium ion batteries Special Provisions Limited Quantities Excepted Quantities Packaging Instructions Packing Provisions Class or Division Subsidiary Risk(s) II Does not present an environm No special precautions necessa | ary. 188 230 310 3 0 E0 P903 - 9 - ental hazard ary. | | |
| 14.6. Special precautions for user <u>IMDG. International Maritime Dangerous Good</u> 14.1. UN number 14.2. UN proper shipping name 14.3. Transport hazard class(es) 14.4. Packing group 14.5. Environmental hazards | No special precautions necessa ds. UN 3480 Lithium ion batteries Special Provisions Limited Quantities Excepted Quantities Packaging Instructions Packing Provisions Class or Division Subsidiary Risk(s) II Does not present an environm | ary. 188 230 310 3 0 E0 P903 - 9 - ental hazard ary. | | |

Section 15. Regulatory Information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture: No information available.

15.2. Chemical safety assessment: No information available.

Section 16. Additional Information.

Full text of Phrases and Statements used in Section 3;

H228: Flammable solid.

H261: In contact with water releases flammable gas.

R10: Flammable.

R15: Contact with water liberates extremely flammable gases.

The above information is believed to be accurate and represents the best information currently available.

No warranty is expressed or implied by the above information.

We assume no liability resulting from use of the above information.

The end user should conduct their own investigations to determine the suitability of the above information for their particular purpose.

| Issue level | Date | Revisions |
|-------------|----------|--------------|
| 1 | 10/06/16 | First issue. |
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End of Safety Data Sheet.

MASTER v6

