Safety Data Sheet

Section 1. Product and Company Identification.

1.1 Model Number; CPG18VBP v3

1.2 Description; Power Tool Battery 18V 2Ah Lithium-ion for CPG18V
Battery: 18 Volts. 2.0 Ah. 625 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; 07/09/2018

Section 2. Hazards Identification.

Battery is hermetically sealed and does not present a hazard under normal conditions of use.
Inappropriate handling and / or use can cause electrolyte to leak.

Ingestion: Contents of an open battery can cause chemical burns of mouth, oesophagus, and gastrointestinal tract.
Inhalation: Contents of an open battery can cause respiratory irritation.
Skin Contact: Contents of an open battery can cause skin irritation.
Eye Contact: Contents of an open battery can cause irritation.

Section 3. Substances.

3.1 Chemical Name (substance)	**3.1 CAS No.**	**3.2 Concentration Weight**	**Classification**	
			Hazard Class & Category Code	**Hazard Statements [1]**
Li(NiCoMn)O2	113066-89-0	25-35%	-	-
Aluminium foil	7429-90-5	21-23%	Flam. Sol. 1 Water-react. 2	H228 H261
Graphite	7782-42-5	15-20%	-	-
Electrolyte	623-53-0 21324-40-3	10-15%	-	-
Poly Vinylidence Fluoride(PVDF)	24937-79-9	1-5%	-	-
Acetylene Black	1333-86-4	0.5-3%	-	-

[1]For full text of 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 if 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 data available.

4.3. Indication of any immediate medical attention and special treatment needed
No data 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 CO_2 (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.
Do not use water 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 8) to prevent eye and skin contact and to prevent inhalation of vapours or fumes.
- remove sources of ignition.

6.2. Environmental precautions
No data 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.
When charging the battery, use dedicated chargers and follow the specified conditions.
Improperly charging a battery may cause the battery to combust.
Lithium batteries for transport by air in a state of charge must have no more than 30% charge of their rated capacity.

7.2. Conditions for safe storage, including any incompatibilities
Prevent contact with conductive materials.
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.

7.3. Specific end use(s)
Intended for use as the battery for the Model Number identified in 1.1 with Description stated in 1.2

Section 8. Exposure Controls/Personal Protection.

8.1. Control parameters
In 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.

(a) Appearance:	Prismatic solid.
(b) Odour:	Not relevant to battery as supplied.
(c) Odour threshold;	Not relevant to battery as supplied.
(d) pH:	Not relevant to battery as supplied.
(e) Melting point/freezing point;	Not relevant.
(f) Initial boiling point and boiling range;	Not relevant.
(g) Flash point;	Not relevant, hermetically sealed.
(h) Evaporation rate;	Not relevant to battery as supplied.
(i) Flammability (solid, gas);	Not relevant, hermetically sealed.
(j) Upper/lower flammability or explosive limits;	Not relevant, hermetically sealed.
(k) Vapour pressure;	Not relevant.
(l) Vapour density;	Not relevant.
(m) Relative density;	Not relevant.
(n) Solubility(ies);	Battery insoluble in water.
(o) Partition coefficient: n-octanol/water;	Not relevant.
(p) Auto-ignition temperature;	Not relevant to battery as supplied.
(q) Decomposition temperature;	Not relevant to battery as supplied.
(r) Viscosity;	Not relevant.
(s) Explosive properties;	Not relevant.
(t) Oxidising properties.	Not relevant.

9.2 Other information None

Section 10. Stability and Reactivity.

10.1. Reactivity	No data available.
10.2. Chemical stability	Stable under normal conditions.
10.3. Possibility of hazardous reactions	No data available.
10.4. Conditions to avoid	Mechanical shock. Vibrations during transport are not detrimental to condition. Do not dismantle, crush or install with incorrect polarity. Prevent mechanical / electrical misuse.
10.5. Incompatible materials	No data available.
10.6. Hazardous decomposition products	No data available.

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.

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 Goods by Road.

14.1. UN number	UN 3480
14.2. Name and Description	Lithium ion batteries
14.3. Transport hazard class(es)	9
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
14.3. Transport hazard class(es)	9
14.4. Packing group	-
14.5. Environmental hazards	Does not present an environmental hazard.
14.6. Special precautions for user	No special precautions necessary.

IMDG. International Maritime Dangerous Goods.

14.1. UN number	UN 3480
14.2. UN proper shipping name	Lithium ion batteries
14.3. Transport hazard class(es)	9
14.4. Packing group	II
14.5. Environmental hazards	Does not present an environmental hazard
14.6. Special precautions for user	No special precautions necessary.
14.7. Transport in bulk – Maritime only.	Bulk transport is not applicable to this product

Section 15. Regulatory Information.

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

15.2. Chemical safety assessment
No data 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 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	27/11/17	First issue.
2	05/12/19	Section 1.4
3	11/02/22	Section 1.2
4	24/02/22	Section 1.2

End of Safety Data Sheet.