

SAFETY DATA SHEET
Lithium-Ion Battery Packs
(less than or equal to 100 Watt Hours)
According to Regulation (EC) No 1907/2006

SECTION 1: Identification of the substance/mixture & of the company/undertaking

1.1 Product Identifier

Product Name

Lithium-Ion Battery Packs (less than or equal to 100 Watt Hours)

Synonyms

Detachable Battery Packs

Black & Decker VPX0111 (7 Volt)

Black & Decker BL1110, BL1310, BL1510, BL1512, BK1512 (10.8 Volt)

Black & Decker LB12, LBX12, LBXR12, LBXR1512 (12 Volt Max)

Black & Decker A1114L, A1514L, BL1114, BL1314, BL1514 (14.4 Volt)

Black & Decker LB16, LBX16, LBXR16 (16 Volt Max)

Black & Decker A1518L, A1118L, LB018, BL1118, BL1318, BL1518, BL2018 (18 Volt)

Black & Decker LB20, LBX20, LBXR20, LBXR2020, LB2X4020, LBXR20BT (20 Volt Max)

Black & Decker BL1336, BL1536, BL2036, BL20362 (36 Volt)

Black & Decker LBX36, LBXR36, LBXR2040, LBX2540, LBXR2540 (40 Volt Max)

Black & Decker BL1554

Black & Decker LBX1560

Bostitch 9B12070R (3.6 Volt)

Bostitch 9R201436, 9R201498, 9R209111, 9R209775 (12/10.8 Volt)

Bostitch BCB182, BCB183 (18 Volt)

Bostitch BCB203, BCB204 (20 Volt)

DEWALT DCB080 (8 Volt)

DEWALT DCB121, DCB123, DCB125, DCB127 (10.8 Volt)

DEWALT DCB120, DCB127 (12 Volt Max)

DEWALT DC9140, DE9140, DE9141, DC9144, DCB140, DCB141, DCB142, DCB143,

DCB144, DCB145 (14.4 Volt)

DEWALT DC9180, DE9180, DC9181, DE9181, DC9182, DE9182, DCB180, DCB181,

DCB182, DCB183, DCB183B, DCB184, DCB184B, DCB185, DCB187 (18 Volt)

DEWALT DCB200, DCB201, DCB203, DCB203BT, DCB204, DCB204BT, DCB205, DCB205BT, DCB207, DCB230 (20 Volt Max)

DEWALT DCB546 with Transport Cap. Battery pack is considered 3 batteries each having

a Whr rating of 36 Whr when Transport Cap in place. (18 Volt/54 Volt)

DEWALT DCB547 with Transport Cap. Battery pack is considered 3 batteries each having

a Whr rating of 54 Whr when Transport Cap in place. (18 Volt/54 Volt)

DEWALT DCB606 with Transport Cap. Battery pack is considered 3 batteries each having

a Whr rating of 40 Whr when Transport Cap in place. (20Volt Max/60Volt Max)

DEWALT DCB609 with Transport Cap. Battery pack is considered 3 batteries each having

a Whr rating of 60 Whr when Transport Cap in place. (20Volt Max/60Volt Max)

DEWALT DC9280, DE9280 (28 Volt)

DEWALT DC9360, DE9360, DCB361 (36 Volt)

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DuBuis AB18LI300, AB18LI150, AB18LI200S, AB18LI400S, AB18LI500S (18 Volt)
 Facom CL3.BA1018, CL3.BA1015, CL3.BA1020 (10.8 Volt)
 Facom CL3.BA1815, CL3.BA1830, CL3.BA1820, CL3.BA1840, CL3.BA1850 (18 Volt)
 MAC Tools MB120, MB127, MBR127 (12 Volt Max)
 MAC Tools MB200, MB201, MB203, MB204, MB205, MBR203, MBR204, MBR205 (20 Volt Max)
 MAC Tools MB120-UK, MB127-UK, MBR127-UK (10.8V)
 MAC Tools MB200-UK, MB201-UK, MB203-UK, MB204-UK, MB205-UK, MBR183-UK, MBR184-UK (18 Volt)
 POP EBC180, EBC181, EBC182, EBC183, EBC184 (18 Volt)
 Porter-Cable PC12BL, PC12BLX, PC12BLXLW (12 Volt)
 Porter-Cable PC18BL, PC18BLX, PC18BLEX (18 Volt)
 Porter-Cable PCC680L, PCC681L, PCC685L, PCC682L (20 Volt Max)
 Sidchrome SCMT90050, SCMT90053 (10.8 Volt)
 Sidchrome SCMT90051, SCMT90052, SCMT90055, SCMT90056 (18 Volt)
 Stanley FatMax FMC085L (10.8 Volt)
 Stanley FatMax FMC080L (12 Volt Max)
 Stanley FatMax FMC585L (14.4 Volt Max)
 Stanley FatMax FMC680L, FMC684L, FMC685L, FMC686L, FMC687L, FMC688L

Integral Battery Packs (contained within products, non-removable)

7.2 Volt- DB72L+, ORB72L+, MPP72L+, EPP72L15D+, EPP72L20D+, G9L72+
 8 Volt – 18650-2S
 10.8 Volt – DB108L+, 315LPF+, MPP108L+, MPP108LP+, G9L108+, FL108L+
 14.4 Volt – DB144L+, 415LPF+, MPP144L+
 18 Volt – DB18L+, FV18L+, 515LPF+, MPP18L+
 21.6 Volt – HPP6CL+
 32.4 Volt – HPP9CL+

Note: + can be replaced by additional letters or numbers

Notes:

1. A suffix following Catalog Number (i.e., “-XJ”) may be used to designate end market.
2. Batteries may be shipped in kits with the products they are intended to power.

1.2	Relevant identified uses of the substance or mixture and uses advised against	
	Identified uses	To power Stanley Black & Decker products.
	Uses advised against	See instruction manual provided with product.
1.3	Details of the supplier of the safety data sheet	
	Supplier	Stanley Black & Decker Avenue de Kleetlaan 5 1831 Diegem Belgium
	Contact Person	-
1.4	Emergency Telephone Number	1-888-698-2571

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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The products are not “substances” or “mixtures” according to Regulation (EC) No 1907/2006 EC. Instead they have to be regarded as “articles, no substances are intended to be released during handling. Therefore there is no obligation to supply a Safety Data Sheet according to Regulation (EC) 1907/2006, Article 31.

-No classification is presented since the product is legally an article rather than chemical substance or mixture according to Regulation (EC) No 1272/2008 [CLP], 67/548/EEC regulation and/or REACH.

-While batteries may release hazardous substances if damaged, this is not an intended release as defined under REACH.

2.2 Label elements

Label in Accordance with (EC) No. 1272/2008 - Not applicable.

2.3 Other hazards

Primary route(s) to exposure: This product is safe with normal use. Exposure to the ingredients contained within and/or their combustion products could be harmful. Risk of exposure occurs only if the battery 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. The battery should not be opened or burned.

Inhalation: Inhalation of material from a sealed from a sealed battery/cell is not expected route of exposure.

Ingestion: Swallowing the contents of a compromised cell may cause serious chemical burns of the mouth, Oesophagus and gastrointestinal tract.

Skin: Contact between skin and battery will not cause harm. Contact with the contents of a compromised cell/battery can cause severe irritation or burns to the skin.

Eye: Contact between the eye and battery will not cause harm. Contact with the contents of a compromised cell/battery can cause severe irritation or burns to the eye.

SECTION 3: Composition / information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Not applicable

* No classification is presented since the product is legally an article which is subject to EU CLP

<u>Chemical name</u>	<u>CAS No.</u>	<u>EC No.</u>	<u>% [weight]</u>	<u>Trade Secret</u>	<u>Classifications</u>
					<u>EC 1272/2008</u>
Copper	7440-50-8	231-159-6	10-30	*	Not available
Mixed Organic carbonates	-	-	10-14	*	Not available
Steel Manufacture, chemicals	65997-19-5	266-048-1	7-13	*	Not classified
Aluminium	7429-90-5	231-072-3	7-13	*	Flam. Sol. 1- H228 Water-react. 2- H261
Lithium manganese oxide (LiMn2O4)	12057-17-9	-	5-10	*	Not classified
Lithium Cobalt Oxide (LiCoO2)	12190-79-3	235-362-0	5-10	*	Repr. 2 - H361
Lithium Nickel Manganese Cobalt Oxide (LiNiMnCoO2)	346417-97-8	-	5-10	*	Not classified
Lithium nickel cobalt aluminium oxide (LiNiCoAlO2)	193214-24-3	-	5-10	*	Not classified

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Nickel	7440-02-0	231-111-4	3-7	*	Skin Sens. 1- H317 Carc. 2- H351 STOT RE 1- H372 Aquatic Chronic 3- H412
Lithium hexafluorophosphate (LiPF6)	21324-40-3	244-334-7	1-3	*	Acute Tox. 3- H301 Skin Corr. 1A- H314 Eye Dam. 1- H318 STOT RE 1- H372

* The exact percentage (concentration) of composition has been withheld as a trade secret.
Composition of organic carbonates in the electrolyte solvent varies.

SECTION 4: First aid measures

4.1 Description of first aid measures

- Inhalation If contents of an opened cell are inhaled, remove source of contamination or move victim to fresh air. Obtain medical advice.
- Ingestion If ingestion of contents of an open cell occurs, NEVER give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Have victim rinse mouth with water again. Quickly transport victim to an emergency care facility.
- Skin contact If skin contact with contents of an open 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 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. If necessary, continue flushing during transport to emergency care facility. Take care not to rinse contaminated water into the unaffected eye or onto face. Quickly transport victim to an emergency care facility.

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

Treat symptomatically.

SECTION 5: Fire fighting measures

General Fire Hazards

See Section 9 for Flammability Properties.
Battery cells may rupture when exposed to excessive heat. Electrolyte solution is flammable.

5.1 Extinguishing media

Use appropriate extinguishing agent for surrounding fire. For damaged or ruptured cells, use Class D extinguisher or other appropriate agent. Class C fire extinguishers should be used to extinguish electrical fires. Do not use water to extinguish electrical or ruptured cell related fires.

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- 5.2 Special hazards arising from the substance or mixture** May release toxic fumes if burned or exposed to fire.
- 5.3 Advice for firefighters** Avoid breathing fire vapours. NOTE! Use air-supplied respirators to protect against gases/fumes. Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, PPE and emergency procedures** Stop the flow of material, if this is without risk. Isolate area. Keep unnecessary personnel away. Avoid skin contact with the spilled material.
- 6.2 Environmental precautions** Avoid discharge to the aquatic environment.
- 6.3 Methods and materials for containment and clean-up** Absorb spill with inert material. Shovel material into appropriate container for disposal. Clean spill area with detergent and water; collect wash water for proper disposal.
- 6.4 Reference to other sections** Wear protective clothing as described in Section 8 of this safety data sheet. For waste disposal, see section 13. See section 11 for additional information on health hazards.

SECTION 7: Handling and storage

- 7.1 Precautions for Safe handling** Avoid damaging or rupturing battery.
- 7.2 Conditions for safe storage, including any incompatibilities** Store in a dry location at room temperature. Avoid extreme heat or fire. Keep out of reach of children.
- 7.3 Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls / personal protection

- 8.1 Control parameters**
Ingredient Comments: WEL-Workplace Exposure Limit

Chemical Name	CAS	Workplace Exposure Limit				Standard
		Limit value - 8 Hours		Limit value - Short term		
		ppm	mg/m ³	ppm	mg/m ³	
Copper	7440-50-8	-	0.2 mg/m ³	-	-	EH40-WEL
Aluminum	7429-90-5	-	10 mg/m ³ (inhalable dust) 4 mg/m ³ (respirable dust)	-	-	EH40-WEL
Nickel and its inorganic compounds	7440-02-0	-	0.1 mg/m ³ (water soluble) 0.5 mg/m ³ (water insoluble)	-	-	EH40-WEL

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8.2 Exposure controls

Protective Equipment	Not necessary under normal product use conditions.
Engineering measures	Not necessary under normal product use conditions.
Respiratory equipment	Not necessary under normal product use conditions.
Hand protection	Use suitable protective gloves if risk of skin contact.
Eye protection	Not necessary under normal product use conditions. Wear safety glasses if handling a damaged battery.
Skin protection	Not necessary under normal product use conditions. Wear neoprene or natural rubber gloves when handling a damaged battery.
Thermal hazards	The molten product can cause serious burns.
Hygiene measures	DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using does not eat, drink or smoke.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Various shaped battery.
Physical State	Solid.
Colour	No information available.
Odour	None.
Odour Threshold	No information available.
pH-Value	Not applicable.
Melting point/freezing point	Not applicable.
Initial boiling point and boiling range	Not applicable.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Evaporation Factor	Not applicable.
Bulk density	Not applicable.
Flammability Limit – Lower (%)	Not applicable.
Flammability Limit – Upper (%)	Not applicable.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	Not applicable.
Solubility (ies)	Insoluble.
Partition coefficient: n-octanol/water	Not applicable.
Auto-ignition temperature	Not applicable.
Decomposition temperature	Not applicable.
Viscosity	Not applicable.
Explosive properties	Not applicable.
Oxidising properties	Not applicable.

9.2 Other information

No information available.

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SECTION 10: Stability and reactivity

10.1 Reactivity	No specific reactivity hazards associated with this product.
10.2 Chemical stability	Stable under normal temperature conditions and recommended use.
10.3 Possibility of hazardous reactions	No information available.
10.4 Conditions to avoid	Avoid exposure to high temperatures or fire.
10.5 Incompatible materials	No information available.
10.6 Hazardous decomposition products	May release toxic fumes if burned or exposed to fire.

SECTION 11: Information on toxicological effects

11.1 Information on toxicological effects

Toxicological information No information available for the product.

SECTION 12: Ecological information

12.1 Toxicity	No information available.
12.2 Persistence and degradability	No information available.
12.3 Bioaccumulative potential	No information available.
Partition coefficient	No information available.
12.4 Mobility in soil	No information available.
12.5 Results of PBT and vPvB assessment	Not Classified as PBT/vPvB by current EU criteria.
12.6 Other adverse effects	No information available.

SECTION 13: Disposal considerations

General information: Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

13.1 Waste treatment methods:	Recycle battery. Do not dispose of in water bodies or sewer system. All wastes must be handled in accordance with local, state and federal regulations. See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.
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Lithium-Ion Battery Packs (less than or equal to 100 Watt Hours)**SECTION 14: Transport information**

General information: Lithium-ion batteries comply with all applicable shipping regulations as prescribed by industry and legal standards which include UN Recommendations on the Transport of Dangerous Goods; the current Edition of the IATA Dangerous Goods Regulations and US DOT requirements. Cells and Batteries have been tested to section 38.3 of the UN Recommendations on the Transport of Dangerous Goods Manual of Tests and Criteria. All of the batteries listed in this Safety Data Sheet are less than or equal to 100 Whrs; therefore, air shipment of up to 2 batteries without equipment in a package can be shipped as an “excepted” quantity and does not require being shipped as a fully regulated Class 9 Hazardous Material. If more than 2 batteries without equipment are being shipped in one package, using air transportation, then the package is considered a fully regulated shipment and must meet the more stringent documentation, marking, and labelling requirements. Effective April 1st, 2016, all air shipments of lithium ion batteries without equipment require the state of charge of the battery to be no greater than 30% of the rated design capacity and are banned from shipment on passenger aircraft (Cargo Aircraft Only).

	ADR	IMDG	DOT	IATA
14.1 UN number	UN 3480 or UN 3481			
14.2 UN proper shipping name	Lithium ion batteries Lithium ion batteries contained in equipment OR Lithium ion batteries packed with equipment	Lithium ion batteries Lithium ion batteries contained in equipment OR Lithium ion batteries packed with equipment	Lithium ion batteries Lithium ion batteries contained in equipment OR Lithium ion batteries packed with equipment	Lithium ion batteries Lithium ion batteries contained in equipment OR Lithium ion batteries packed with equipment
14.3 Transport hazard class(es)	9(Miscellaneous)	9 (Miscellaneous)	9 (Miscellaneous)	9 (Miscellaneous)
14.4 Packing group	II	II	II	II
14.5 Environmental hazards	Marine Pollutant: No	Marine Pollutant: No	Marine Pollutant: No	Marine Pollutant: No
14.6 Packing instruction or Special provision	188 (Special Provision)	188 (Special Provision)	49 CFR 173.185(c)	Packaging instructions: 965 (Section IB for greater than 2 batteries per package, Section II for less than or equal to 2 batteries per package),966 or 967(Section II)
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:	Not applicable.			

SECTION 15: Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture:**
 Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA
 None of the components in this product is listed.
 Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended
 None of the components in this product is listed.
 Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended
 Nickel (CAS # 7440-02-0)

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Directive 2012/18/EU on major accident hazards involving dangerous substances
None of the components in this product is listed.

15.2. Chemical safety assessment:

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision Date	16-2-2017
Revision	-
Abbreviations and acronyms	
Flam. Sol. 1	Flammable solid, Hazard Category 1
Water-react. 2	Substances And Mixtures Which, In Contact With Water, Emit Flammable Gases, Category 2
Acute Tox 3	Acute toxicity , Category 3
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Repr. 2	Reproductive toxicity , category 2
Skin Sens. 1	Sensitization, Skin, Category 1
Carc. 2	Carcinogenicity, Category 2
STOT RE 1	Specific target organ toxicity, repeated exposure, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment, long-term Hazard, Chronic Hazard Category3
H228	Flammable solid
H261	In contact with water releases flammable gas
H301	Toxic if swallowed
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H372	Causes damage to organs through prolonged or repeated exposure
H412	Harmful to aquatic life with long lasting effects

DISCLAIMER

The information herein is presented in good faith and believed to be accurate as of the effective date given. However, no warranty guarantee or representation is made to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.