PRODUCT SAFETY DATA SHEET

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

* * * Section 1 – Identification * * *

Product Identifier: **Detachable Battery Packs**

BLACK+DECKER
- (7 Volt) - VPX0111
- (10.8 Volt) - BL1110, BL1310, BL1510, BL1512, BK1512
- (12 Volt Max) - LB12, LBX12, LBXR12, LBXR1512, BCB001, BDCB12B
- (14.4 Volt) - A1114L, A1514L, BL1114, BL1314, BL1514
- (16 Volt Max) - LB16, LBX16, LBXR16
- (18 Volt) - A1518L, A1118L, LB018, BL1118, BL1318, BL1518, BL1518ST, BL2018, BL2018ST, BL4018
- (20 Volt Max) - LB20, LBX20, LBXR20, LBXR2020, LB2X4020, LBXR20BT, LBXR2520, LB2X3020
- (36 Volt) - BL1336, BL1536, BL2036, BL20362
- (40 Volt Max) - LBXR36, LBX1540, LBXR2036, LBX2040, LBX2540
- (18 Volt/54 Volt) - BL1554
- (20V Max/60 Volt Max) - LBX1560

BOSTITCH
- (3.6 Volt) - 9B12070R, 9B12072R
- (12/10.8 Volt) - 9R201436, 9R201498, 9R209111, 9R209775
- (18 Volt) - BCB182, BCB183, BTCB182, BTCB183, BTC480L
- (20 Volt) - BCB203, BCB204

CRAFTSMAN
- (20 Volt) – CMCB201, CMCB2011, CMCB202, CMCB204, CMCB205
- (40 Volt) – CMCB98025, CMCB98026, CMCB98027
- (60 Volt Max) – CMCB6025 Battery pack is considered 3 batteries each with a rating of 50 Whr when not inserted in a tool or a charger
  CMCB6050 Battery pack is considered 3 batteries each with a rating of 100 Whr when not inserted in a tool or a charger

DEWALT
- (8 Volt) - DCB080
- (10.8 Volt) - DCB121, DCB123, DCB125, DCB127
- (12 Volt Max) - DCB120, DCB127
- (14.4 Volt) - DC9140, DE9140, DE9141, DC9144, DCB140, DCB141, DCB142, DCB143, DCB144, DCB145
- (18 Volt) - DC9180, DE9180, DC9181, DE9181, DC9182, DE9182, DCB180, DCB181, DCB182, DCB183, DCB183B, DCB184, DCB184B, DCB185, DCB187
- (20 Volt Max) - DCB200, DCB201, DCB203, DCB203BT, DCB204, DCB204BT, DCB205, DCB205BT, DCB207, DCB230, DCB240
- (18 Volt/54 Volt) - DCB546 with Transport Cap. Battery pack is considered 3 batteries each having a Whr rating of 36 Whr with Transport Cap in place,
  DCB547 with Transport Cap. Battery pack is considered 3 batteries each having a Whr rating of 54 Whr with Transport Cap in place

(20Volt Max/60Volt Max) - DCB606 with Transport Cap. Battery pack is considered 3 batteries each having a Whr rating of 40 Whr with Transport Cap in place,
DCB609 with Transport Cap. Battery pack is considered 3 batteries each having a Whr rating of 60 Whr with Transport Cap in place,
DCB612 with Transport Cap. Battery pack is considered 3 batteries each having a Whr rating of 80 Whr with Transport Cap in place
(28 Volt) - DC9280, DE9280
(36 Volt) - DC9360, DE9360, DCB361

DuBuis
(18 Volt) - AB18LI200S, AB18LI500S

Facom
(10.8 Volt) - CL3.BA1015, CL3.BA1020, CL3.CTB.BA
(18 Volt) - CL3.BA1815, CL3.BA1830, CL3.BA1820, CL3.BA1840, CL3.BA1850

MAC Tools
(12 Volt Max) - MB120, MB127, MBR127
(20 Volt Max) - MB200, MB201, MB203, MB204, MB205, MBR203, MBR204, MBR205
(10.8V) - MB120-UK, MB127-UK, MBR127-UK
(18 Volt) - MB200-UK, MB201-UK, MBR183-UK, MBR184-UK

POP
(18 Volt) - EBC180, EBC181, EBC182, EBC183, EBC184

PORTER-CABLE
(12 Volt) - PC12BL, PC12BLX, PC12BLXLW
(18 Volt) - PC18BL, PC18BLX, PC18BLEX
(20 Volt Max) - PCC680L, PCC681L, PCC685L, PCC682L, PCC683L

Sidchrome
(10.8 Volt) - SCMT90050, SCMT90053
(18 Volt) - SCMT90051, SCMT90052, SCMT90056

Stanley FatMax
(10.8 Volt) - FMC085L, FMC086L, SCB12S, SB12S
(12 Volt Max) - FMC080L, SB12S
(14.4 Volt Max) - FMC585L
(18/20 Volt) - FMC680L, FMC684L, FMC685L, FMC686L, FMC687L, FMC688L, FMC689L, SB20C, SCB20C, SB20S, SB20D, SCB20D, STBL182L, STBL184L, SCB20M

Tucker
(18 Volt) – SCB182, SCB183, SCB184

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

3.6 Volt – SW9007+, EPP36L15+, BDCSFL20BP, BDCSFS30BP, ORB36+
7.2 Volt- DB72L+, ORB72L+, MPP72L+, EPP72L15D+, EPP72L20D+, G9L72+, SW9007A+
8 Volt – 18650-2S
10.8 Volt – DB108L+, 315LPF+, MPP108L+, MPP108LP+, G9L108+, FL108+, G95L108+, PH108L+, G3L108+, EPP108PVX
14.4 Volt – DB144L+, 415LPF+, MPP144L+, G2L144+, G3L144+, G9L144+
18 Volt – DB18L+, FV18L+, 515LPF+, MPP18L+, BFH18L+, BFS18L+, G2L18+, G3L18+, G9L18+, BFH18+, BFS18+
21.6 Volt – HPP6CL+, BF620L+, BF625L+
25.2 Volt – BF720L+, BF725L+
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.

Manufacturer Name: Stanley Black & Decker

Manufacturer Address: 1000 Stanley Drive
New Britain, CT 06053

Phone Number: 1-860-225-5111

Emergency Phone Number: 1-888-698-2571

Recommended Use: To power Stanley Black & Decker products

Uses advised against: See instruction manual provided with product.

* * * Section 2 - Hazards Identification * * *

Classification

These batteries are not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). The batteries referenced in this document are considered "Articles," not "Materials," as defined by the Occupational Safety and Health Administration's Hazard Communication Standard, and as such are exempted from the requirements to publish MSDS sheets per the Code of Federal Regulations 29 CFR 1910.1200 (b)(6)(v). The hazards indicated below cover the abnormal situation where a battery ruptures.

Acute Toxicity – Oral	Category 4
Acute Toxicity – Dermal	Category 4
Acute Toxicity – Inhalation (Vapors)	Category 3
Acute Toxicity – Inhalation (Dusts/Mists)	Category 2
Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Carcinogenicity	Category 1A
Reproductive Toxicity	Category 1A
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 1

GHS Label elements, including precautionary statements

Emergency Overview

Signal Word **Danger**

Hazard Statements
Harmful if swallowed
Harmful in contact with skin
Fatal if inhaled
Causes severe skin burns and eye damage
May cause an allergic skin reaction
May cause cancer
May damage fertility or the unborn child
May cause respiratory irritation
Causes damage to organs through prolonged or repeated exposure

This product is an article (battery) which contains chemical substances. Intended use of the product should not result in exposure to the chemical substances. In case of rupture, the above hazards exist.

Appearance Solid **Physical state** Solid **Odor** None

* * * Section 3 - Composition / Information on Ingredients * * *

This battery is an article as defined by 29 CFR 1910.1200. Exposure to hazardous ingredients is not anticipated under normal product use.

Chemical Name	CAS No.	Weight - %	Trade Secret
Copper	7440-50-8	10-30	*
Steel Manufacture, chemicals	65997-19-5	7-13	*
Lithium hexafluorophosphate (LiPF6)	21324-40-3	1-3	*
Aluminum	7429-90-5	7-13	*
Lithium manganese oxide (LiMn2O4)	12057-17-9	5-10	*
Lithium Cobalt Oxide (LiCoO2)	12190-79-3	5-10	*
Lithium Nickel Manganese Cobalt Oxide (LiNiMnCoO2)	346417-97-8	5-10	*
Lithium nickel cobalt aluminum oxide (LiNiCoAlO2)	193214-24-3	5-10	*
Nickel	7440-02-0	3-7	*
Mixed Organic carbonates		10-14	*

* 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 * * *

First Aid: Eyes

Flush eyes with lukewarm water for at least 30 minutes while holding the eyelids open. Seek immediate medical care.

First Aid: Skin

Remove contaminated clothing, shoes and leather goods. Flush with water for at least 30 minutes. Seek medical attention if symptoms persist.

First Aid: Ingestion

Never give anything by mouth if victim is unconscious. Rinse mouth thoroughly water. Do not induce vomiting. Seek immediate medical attention.

First Aid: Inhalation

Remove person to fresh air away from source of contamination.

* * * 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.

Hazardous Combustion Products

May release toxic fumes if burned or exposed to fire.

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.

Fire Fighting Equipment/Instructions

Firefighters should wear full protective gear.

NFPA Ratings: Health: 0 **Fire:** 0 **Reactivity:** 0
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

* * * Section 6 - Accidental Release Measures * * *

Containment Procedures

Stop the flow of material, if this is without risk.

Clean-Up Procedures

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.

Evacuation Procedures

Isolate area. Keep unnecessary personnel away.

Special Procedures

Avoid skin contact with the spilled material.

* * * Section 7 - Handling and Storage * * *

Handling Procedures

Avoid damaging or rupturing battery.

Storage Procedures

Store in a dry location at room temperature. Avoid extreme heat or fire. Keep out of reach of children.

* * * Section 8 - Exposure Controls / Personal Protection * * *

A: Component Exposure Limits

ACGIH, OSHA, and NIOSH have not developed exposure limits for any of this product's components.

Engineering Controls

Not necessary under normal product use conditions.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Not necessary under normal product use conditions. Wear safety glasses if handling a damaged battery.

Personal Protective Equipment: Skin

Not necessary under normal product use conditions. Wear neoprene or natural rubber gloves when handling a damaged battery.

Personal Protective Equipment: Respiratory

Not necessary under normal product use conditions.

Personal Protective Equipment: General

Eyewash fountains and emergency showers are required.

* * * Section 9 - Physical and Chemical Properties * * *

Appearance:	Various shaped battery	**Odor:**	None
Physical State:	Solid	**pH:**	NA
Vapor Pressure:	NA	**Vapor Density:**	NA
Boiling Point:	NA	**Melting Point:**	NA
Solubility (H2O):	Insoluble	**Specific Gravity:**	NA
Evaporation Rate:	NA	**VOC:**	NA
Octanol/H2O Coeff.:	NA	**Flash Point:**	NA
Flash Point Method:	NA	**Upper Flammability Limit (UFL):**	NA
Lower Flammability Limit (LFL):	NA	**Burning Rate:**	NA
Auto Ignition:	NA		

* * * Section 10 - Stability and Reactivity * * *

Chemical Stability

This is a stable material.

Chemical Stability: Conditions to Avoid

Avoid exposure to elevated temperatures and fire.

Incompatibility

Not Available.

Hazardous Decomposition

May release toxic fumes if burned or exposed to fire.

Possibility of Hazardous Reactions

Not Available.

* * * Section 11 - Toxicological Information * * *

Acute Dose Effects

A: General Product Information

If product is ruptured, material may cause irritation to the skin, eyes and respiratory tract.

B: Component Analysis - LD50/LC50

No LD50/LC50's are available for this product's components.

Carcinogenicity

A: General Product Information

No information available for the product.

B: Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

* * * Section 12 - Ecological Information * * *

Ecotoxicity

A: General Product Information

No information available for the product.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

No ecotoxicity data are available for this product's components.

* * * Section 13 - Disposal Considerations * * *

US EPA Waste Number & Descriptions

Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions

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.

* * * Section 14 – Transport 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 59th 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 the batteries listed in this Safety Data Sheet are less than or equal to 100 Whr; 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 labeling requirements. 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).

Batteries Alone

UN3480, Lithium Ion Batteries

Air Shipments (IATA) – Packing Instruction 965 (Section IB for greater than 2 batteries per package, Section II for less than or equal to 2 batteries per package)

Sea Shipments (IMO-IMDG) – Special Provision 188

Europe Road Transportation (ADR) – Special Provision 188

US Road Transportation (DOT) – 49 CFR 173.185(c)

Batteries with or in Equipment

UN3481, Lithium Ion Batteries packed with equipment OR Lithium Ion Batteries contained in equipment.

Air Shipments (IATA) – Packing Instruction 966 or 967, Section II

Sea Shipments (IMO-IMDG) – Special Provision 188

Europe Road Transportation (ADR) – Special Provision 188

US Road Transportation (DOT) – 49 CFR 173.185(c)

* * * Section 15 - Regulatory Information * * *

US Federal Regulations

A: General Product Information

All components are on the U.S. EPA TSCA Inventory List.

B: Component Analysis

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

State Regulations

A: General Product Information

No additional information available.

B: Component Analysis - State

None of this product's components are listed on the state lists from CA, MA, MN, NJ, PA, or RI.

Canadian WHMIS Information

A: General Product Information

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations.

B: Component Analysis - WHMIS IDL

No components are listed in the WHMIS IDL.

Additional Regulatory Information

None

* * * Section 16 - Other Information * * *

Other Information

The information herein is presented in good faith and believed to be accurate as of the effective date given. However, no warranty, expressed or implied, is given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration., NJTSR = New Jersey Trade Secret Registry, WHMIS = Workplace Hazardous Materials Information System (Canada)