



## MATERIAL SAFETY DATA SHEET

**Product name:** Hilti Lithium-Ion batteries  
**Description:** Rechargeable Lithium-Ion batteries for power tools  
**Supplier:** Hilti, Inc. P.O. Box 21148, Tulsa, OK 74121  
**Emergency # (Chem-Trec.):** 1 800 424 9300 (USA, PR, Virgin Islands, Canada); 703 527 3887 (Other countries)

## INGREDIENTS AND EXPOSURE LIMITS

This product is regarded as an "Article" by definition under OSHA Regulation, 29CFR 1910.1200(c). This product contains a positive electrode (lithium cobalt oxide), a negative electrode (graphite) and electrolyte (ethylene carbonate, diethyl carbonate and lithium hexafluorophosphate). The physical form of the product, however, precludes exposure to workers under normal conditions of use.

## PHYSICAL DATA

<b>Appearance:</b>	Red/Black plastic case.	<b>Odor:</b>	Not applicable.
<b>Vapor Density: (air = 1)</b>	Not applicable.	<b>Vapor Pressure:</b>	Not applicable.
<b>Boiling Point:</b>	Not applicable.	<b>VOC Content:</b>	Not applicable.
<b>Evaporation Rate:</b>	Not applicable.	<b>Solubility in Water:</b>	Not applicable.
<b>Specific Gravity:</b>	Not determined.	<b>pH:</b>	Not determined.

## FIRE AND EXPLOSION HAZARD DATA

<b>Flash Point:</b>	Not applicable.	<b>Flammable Limits:</b>	Not applicable.
<b>Extinguishing Media:</b>	Carbon Dioxide, Dry Chemical, Foam, Water.		
<b>Special Fire Fighting Procedures:</b>	None known. Always use a self-contained breathing apparatus when fighting fires involving chemicals.		
<b>Unusual Fire and Explosion Hazards:</b>	None expected.		

## REACTIVITY DATA

<b>Hazardous Polymerization:</b>	Will not occur.	<b>Stability:</b>	Stable.
<b>Incompatibility:</b>	Strong oxidizers/strong acids.		
<b>Decomposition Products:</b>	Thermal decomposition can yield toxic and acrid gases.		
<b>Conditions to Avoid:</b>	See "Handling and Storing Precautions" below.		

## HEALTH HAZARD DATA

<b>Known Hazards:</b>	None known.
<b>Signs and Symptoms of Exposure:</b>	None anticipated.
<b>Routes of Exposure:</b>	None anticipated from proper use of this product.
<b>Carcinogenicity:</b>	Not applicable. See spill procedures.
<b>Medical Conditions Aggravated by Exposure:</b>	None expected.

## EMERGENCY AND FIRST AID PROCEDURES

Under normal conditions of use, no exposure(s) should occur. The Emergency and First Aid Procedures are only applicable where there has been an exposure to electrolyte which has leaked from a damaged battery

Eyes:	Flush with plenty of water. Contact a physician if symptoms occur.
Skin:	Wash with soap and water. Contact a physician if symptoms occur.
Inhalation:	Move victim to fresh air. Contact a physician if symptoms persist.
Ingestion:	Contact a physician immediately.
Other:	Referral to a physician is recommended if there is any question about the seriousness of the injury/exposure.

## CONTROL MEASURES AND PERSONAL PROTECTIVE EQUIPMENT

Ventilation:	General (natural or mechanically induced fresh air movements).
Eye Protection:	Not required for handling the battery pack; however, safety glasses with side shields recommended while using most powered hand tools.
Skin Protection:	Not required
Respiratory Protection:	Not normally required. However, in some instances, dusts generated while drilling/sawing may necessitate the use of respiratory protection.

## PRECAUTIONS FOR SAFE HANDLING AND USE

Handling and Storing Precautions:	Store in a cool dry place less than 95° F. Exposure to excessive heat and humidity and storage above 100° F will shorten the shelf life of this product. Keep out of reach of children. For industrial use only.
Spill Procedures:	If the battery integrity is destroyed by accident, (for example crushing) and the contents are released, do not touch spilled material. Take up with sand or other absorbent and place in container for disposal. Contact with battery contents may cause skin irritation and/or corrosive eye damage. If skin contact occurs, wash affected areas thoroughly with soap and water. Get medical attention if irritation develops. If eye contact occurs, flush thoroughly with running water for at least 15 minutes, while holding eyelids open. Get prompt medical attention.

## REGULATORY INFORMATION

Hazard Communication:	This product is regarded as an "Article" by OSHA definition.
HMIS Codes:	Health 0, Flammability 0, Reactivity 0, PPE A
DOT Shipping Name:	Not regulated, but require the following label for ground shipment, "Lithium Batteries Forbidden for Transport Aboard Aircraft & Vessels."
IATA Shipping Name:	Lithium Battery, 9, UN3480, PGII
TSCA Inventory Status:	Chemical components listed on TSCA inventory.
SARA Title III, Section 313:	This product is considered to be an "Article", therefore, it is not subject to reporting under Section 313 of SARA Title III (40 CFR Part 372).
EPA Waste Code(s):	N/A
Waste Disposal Methods:	Batteries may be returned to Hilti by contacting the local salesperson, returning it to the local Hilti Center, or calling the toll free number (1-800-879-8000) where a Customer Service Representative will provide return instructions. <b>DO NOT DISPOSE IN THE TRASH.</b> Place tape over any exposed terminals to prevent inadvertent short-circuit during transportation.

## CONTACTS

Customer Service:	1 800 879 8000	Technical Service:	1 800 879 8000
Health / Safety:	1 800 879 6000	Jerry Metcalf	(x1003704)
Emergency # (Chem-Trec):	1 800 424 9300 (USA, PR, Virgin Islands, Canada); 001 703 527 3887 (other countries)		

The information and recommendations contained herein are based upon data believed to be correct; however, no guarantee or warranty of any kind expressed or implied is made with respect to the information provided.