

# Sherpa 50

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations  
Date of issue: November 2, 2016 Version: 1.0

### SECTION 1: Identification

#### 1.1. Identification

Trade name : Sherpa 50

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Charger for electronic devices.  
Capacity : 56Wh, 5200mAh (10.8V)

#### 1.3. Details of the supplier of the safety data sheet

Goal Zero  
675 West 14600 South  
Bluffdale, UT 84065  
T (888) 794-6250

#### 1.4. Emergency telephone number

Emergency number : US & Canada:1-800-535-5053 International: 1-352-323-3500 (Infotrac)

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

**This product is non-hazardous in its current form. If the battery opens or leaks, the following hazards apply:**

##### GHS-US classification

Acute toxicity (oral), Category 4 H302  
Skin corrosion/irritation, Category 2 H315  
Serious eye damage/eye irritation, Category 1 H318  
Specific target organ toxicity - Repeated exposure, Category 1 H372  
Full text of H statements: see section 16

#### 2.2. Label elements

##### GHS-US labelling

Hazard pictograms (GHS-US) :



GHS08

Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : H302 - Harmful if swallowed  
H315 - Causes skin irritation  
H318 - Causes serious eye damage  
H372 - Causes damage to organs through prolonged or repeated exposure

Precautionary statements (GHS-US) : P260 - Do not breathe fume, mist, spray, vapors  
P264 - Wash hands thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product  
P280 - Wear protective gloves, eye protection  
P301+P312 - If swallowed: Call a doctor, a POISON CENTER if you feel unwell  
P302+P352 - If on skin: Wash with plenty of water  
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P310 - Immediately call a POISON CENTER  
P314 - Get medical advice/attention if you feel unwell  
P330 - Rinse mouth  
P332+P313 - If skin irritation occurs: Get medical advice/attention  
P362+P364 - Take off contaminated clothing and wash it before reuse  
P501 - Dispose of contents/container to comply with applicable local, national and international regulation

#### 2.3. Other hazards

No additional information available

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### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Ethylene carbonate	(CAS No) 96-49-1	10 - 20	Eye Irrit. 2A, H319 STOT RE 2, H373
Copper	(CAS No) 7440-50-8	2 - 10	Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 Aquatic Chronic 3, H412
Phosphate(1-), hexafluoro-, lithium	(CAS No) 21324-40-3	< 5	Acute Tox. 3 (Oral), H301 Skin Corr. 1A, H314 Eye Dam. 1, H318 STOT RE 1, H372

Full text of hazard classes and H-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- First-aid measures after inhalation : If a battery ruptures, allow victim to breathe fresh air. Allow the victim to rest. Get medical advice/attention if you feel unwell.
- First-aid measures after skin contact : If a battery ruptures, remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : If a battery ruptures, rinse immediately with plenty of water. Get immediate medical advice/attention.
- First-aid measures after ingestion : If a battery ruptures, rinse mouth. Do NOT induce vomiting. Get medical advice/attention if you feel unwell.

### 4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : Not expected to present a significant inhalation hazard under anticipated conditions of normal use. If a battery ruptures, may cause irritation to the respiratory tract.
- Symptoms/injuries after skin contact : Not expected to present a significant skin hazard under anticipated conditions of normal use. If a battery ruptures, causes skin irritation.
- Symptoms/injuries after eye contact : Not expected to present a significant eye contact hazard under anticipated conditions of normal use. If a battery ruptures, causes serious eye damage.
- Symptoms/injuries after ingestion : Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If a battery ruptures, may cause stomach pain or discomfort.
- Chronic symptoms : Causes damage to organs through prolonged or repeated exposure.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

- Fire hazard : Minimal fire hazard. Battery may rupture due to pressure buildup when exposed to excessive heat and may result in the release of hazardous materials. On combustion, forms: hydrogen fluoride and carbon oxides
- Explosion hazard : Heating will cause pressure to rise with risk of bursting and subsequent explosion.
- Reactivity : None under normal conditions.

### 5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering the environment.
- Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection.

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### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if battery enters sewers or public waters.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.

#### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection. For disposal of residues refer to section 13: Disposal considerations.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Provide good ventilation in process area to prevent formation of vapor. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Hygiene measures : Wash hands thoroughly after handling. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Handle in accordance with good industrial hygiene and safety practice.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from heat sources. Keep container closed when not in use. Keep away from high or low temperatures.

Incompatible materials : Heat sources.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

<b>Copper (7440-50-8)</b>		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0.2 mg/m <sup>3</sup> (fume)
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	0.1 mg/m <sup>3</sup> (fume) 1 mg/m <sup>3</sup> (dust and mist)
IDLH	US IDLH (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup> (dust, fume and mist)
NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (dust and mist) 0.1 mg/m <sup>3</sup> (fume)

#### **Ethylene carbonate (96-49-1)**

Not applicable

#### **Phosphate(1-), hexafluoro-, lithium (21324-40-3)**

Not applicable

#### 8.2. Exposure controls

Appropriate engineering controls : If handling an open or leaking battery: Provide adequate ventilation. Provide local exhaust or general room ventilation to minimize vapor concentrations.

Hand protection : Not required for normal conditions of use. Impermeable protective gloves if handling an open or leaking battery.

Eye protection : Not required for normal conditions of use. Chemical goggles or safety glasses if handling an open or leaking battery.

Respiratory protection : Not required for normal conditions of use. NIOSH/MSHA approved air purifying respirator should be used if operating conditions produce airborne concentrations that exceed exposure limits for any individual components. If conditions immediately dangerous to life or health exist, use NIOSH/MSHA self-contained breathing apparatus (SCBA) especially when handling an open or leaking battery.

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Other information : Do not eat, drink or smoke during use.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state : Solid  
Color : Varies  
Odor : Odorless  
Odor threshold : No data available  
pH : No data available  
Melting point : No data available  
Freezing point : No data available  
Boiling point : No data available  
Flash point : No data available  
Relative evaporation rate (butylacetate=1) : No data available  
Flammability (solid, gas) : Non flammable.  
Vapor pressure : No data available  
Relative vapor density at 20 °C : No data available  
Relative density : No data available  
Solubility : Insoluble in water.  
Log Pow : No data available  
Auto-ignition temperature : No data available  
Decomposition temperature : No data available  
Viscosity, kinematic : No data available  
Viscosity, dynamic : No data available  
Explosive limits : No data available  
Explosive properties : No data available  
Oxidizing properties : No data available

#### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

None under normal conditions.

#### 10.2. Chemical stability

Stable at normal conditions.

#### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

#### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Do not puncture, crush, or incinerate.

#### 10.5. Incompatible materials

Heat sources.

#### 10.6. Hazardous decomposition products

On combustion, forms: Carbon monoxide. Carbon dioxide. Hydrogen fluoride.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Likely routes of exposure : Ingestion; Inhalation; Skin and Eye contact  
Acute toxicity : Oral: Harmful if swallowed.

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ATE US (oral)	1428.571 mg/kg bodyweight
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye damage.

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Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: Not expected to present a significant inhalation hazard under anticipated conditions of normal use. If a battery ruptures, may cause irritation to the respiratory tract.
Symptoms/injuries after skin contact	: Not expected to present a significant skin hazard under anticipated conditions of normal use. . If a battery ruptures, causes skin irritation.
Symptoms/injuries after eye contact	: Not expected to present a significant eye contact hazard under anticipated conditions of normal use. If a battery ruptures, causes serious eye damage.
Symptoms/injuries after ingestion	: Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If battery ruptures, swallowing can be harmful. Contents of an open battery can cause serious chemical burns of mouth, esophagus, and gastrointestinal tract.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general	: The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
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#### 12.2. Persistence and degradability

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Persistence and degradability	Not established.

#### 12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established.

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Other adverse effects

Effect on global warming	: No known effects from this product.
GWPMix comment	: No known effects from this product.
Other information	: Avoid release to the environment.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste disposal recommendations	: Dispose of contents/container to comply with applicable local, national and international regulation.
Ecology - waste materials	: Avoid release to the environment.

### SECTION 14: Transport information

#### Department of Transportation (DOT)

In accordance with DOT

Transport document description	: UN3481 Lithium ion batteries, contained in equipment including lithium ion polymer batteries, 9
UN-No.(DOT)	: UN3481
Proper Shipping Name (DOT)	: Lithium ion batteries, contained in equipment including lithium ion polymer batteries
Hazard labels (DOT)	: 9 - Class 9 (Miscellaneous dangerous materials)
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 185
DOT Packaging Bulk (49 CFR 173.xxx)	: 185
DOT Special Provisions (49 CFR 172.102)	: A54 - Lithium batteries or lithium batteries contained or packed with equipment that exceed the maximum gross weight allowed by Column (9B) of the 172.101 Table may only be transported on cargo aircraft if approved by the Associate Administrator
DOT Packaging Exceptions (49 CFR 173.xxx)	: 185

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DOT Quantity Limitations Passenger aircraft/rail : 5 kg  
(49 CFR 173.27)  
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 35 kg  
DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel  
Emergency Response Guide (ERG) Number : 147  
Other information : No supplementary information available.

### TDG

Not applicable

### Transport by sea

UN-No. (IMDG) : 3481  
Proper Shipping Name (IMDG) : LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT  
Class (IMDG) : 9 - Miscellaneous dangerous substances and articles  
Limited quantities (IMDG) : N/A  
Provision (IMDG) : 188

### Air transport

UN-No. (IATA) : 3481 (Section 1B)  
Proper Shipping Name (IATA) : Lithium ion batteries contained in equipment  
Class (IATA) : 9 - Miscellaneous Dangerous Goods  
Packing Instructions : 967 (57<sup>th</sup> Edition)

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Copper	CAS No 7440-50-8	2 - 10%
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#### Copper (7440-50-8)

CERCLA RQ  
5000 lb no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm

### 15.2. International regulations

#### CANADA

##### Cobaltate (CoO21-), lithium (12190-79-3)

Listed on the Canadian DSL (Domestic Substances List)

##### Copper (7440-50-8)

Listed on the Canadian DSL (Domestic Substances List)

##### Methyl propionate (554-12-1)

Listed on the Canadian DSL (Domestic Substances List)

#### EU-Regulations

##### Cobaltate (CoO21-), lithium (12190-79-3)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

##### Copper (7440-50-8)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

##### Methyl propionate (554-12-1)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### National regulations

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### Cobaltate (CoO21-), lithium (12190-79-3)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on the Korean ECL (Existing Chemicals List)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Japanese Pollutant Release and Transfer Register Law (PRTR Law)

### Copper (7440-50-8)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the Korean ECL (Existing Chemicals List)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on the Canadian IDL (Ingredient Disclosure List)  
Listed on INSQ (Mexican National Inventory of Chemical Substances)  
Listed on CICR (Turkish Inventory and Control of Chemicals)

### Methyl propionate (554-12-1)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on the Korean ECL (Existing Chemicals List)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on the Canadian IDL (Ingredient Disclosure List)  
Listed on INSQ (Mexican National Inventory of Chemical Substances)

### 15.3. US State regulations

No additional data available.

## SECTION 16: Other information

Date of Issue : November 2, 2016  
Other information : None.

Full text of H-statements:

H225	Highly flammable liquid and vapor
H302	Harmful if swallowed
H332	Harmful if inhaled
H361	Suspected of damaging fertility or the unborn child
H400	Very toxic to aquatic life
H412	Harmful to aquatic life with long lasting effects

SDS US (GHS HazCom 2012)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*