GECI GREEN ENERGY CONCEPTS, INC.

# MATERIAL SAFETY DATA SHEET LAST REVISION: 22 Dec. 2022
# Velox Lithium Batteries

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

| | |
|---|---|
| PRODUCT NAME: | Velox 1 |
| PRODUCT CODES: | See TABLE 1 |
| CHEMICAL NAME: | Lithium Iron Phosphate |
| CHEMICAL FAMILY: | Lithium Ion |
| CHEMICAL FORMULA: | LiFePO4 |
| | |
| PRODUCT USE: | Electrical |
| MANUFACTURER: | Battelec |
| ADDRESS: | 800 Croisetiere road<br>Saint-Jean-Sur-Richelieu, QC |
| PHONE: | (450) 434-1585 |
| E-MAIL: | info@veloxpower.com |

EMERGENCY PHONE: In case of emergency call 911.

TABLE 1:
Standard battery code example: C338132700D-48-500-1150 (Lithium battery with 48V and 500Ah)

| Battery Type | Voltage (V) | Capacity (Ah) |
|---|---|---|
| C.... | 24 | 160 |
| | 36 | 320 |
| | 48 | 500 |
| | 72 | 650 |
| | 80 | 800 |
| | 374 | 1000 |
| | | 1125 |
| | | 1450 |
| | | 1600 |
| | | 2000 |
| | | 3200 |

## SECTION 2: HAZARDS IDENTIFICATION

HEALTH HAZARD (ACUTE AND CHRONIC)
These chemicals are contained in a sealed can. Risk of exposure only occurs if the battery is mechanically, thermally or electrically abused. Contact of electrolyte and extruded lithium with skin and eyes should be avoided.

SIGNS/SYMPTOMS OF EXPOSURE
A shorted lithium battery can cause thermal and chemical burns upon contact with the skin. It may also be a reproductive hazard.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Composition | Chemical Formula | CAS No. | Weight (%) |
|---|---|---|---|
| Aluminum | Al | 7429-90-5 | 10.7 |
| Copper | Cu | 7440-50-8 | 6.9 |
| Lithium iron phosphate | LiFeO4 | 15365-14-7 | 39.0 |
| Graphite | C | 7782-42-5 | 19.6 |
| Polyethylene | $[-CH_2-CH_2]_n$ | 9002-88-4 | 1.4 |
| Lithium hexafluorophosphate | $LiPF_6$ | 21324-40-3 | 2.6 |
| Acetylene Black | C | 1333-86-4 | 0.6 |
| Ethyl Methyl Carbonate | $C_4H_8O_3$ | 623-53-0 | 13.2 |
| Ethylene Carbonate | $C_4H_8O_3$ | 96-49-1 | 6.0 |
| Lead | Pb | 7439-92-1 | Not Detected |
| Cadmium | Cd | 7440-43-9 | Not Detected |
| Mercury | Hg | 7439-97-6 | Not Detected |

## SECTION 4: FIRST AID MEASURES

This information is of relevance only if the battery is broken and this results in a direct contact with the ingredients.

EYES:
Flush affected eyes with lukewarm water for at least 30 minutes.Seek Medical attention.

SKIN:
Flush affected area with lukewarm water for at least 30 minutes If irritation or pain persists, seek medical attention.

INHALATION:
Move victim to fresh air and remove sources of contamination from the area. Seek medical attention.

INGESTION:
Give at least 2 glasses of milk or water. Induce vomiting unless the patient is unconscious. Call a physician

## SECTION 5: FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Water, dry chemical powder, carbon dioxide (CO2) and foam are most effective to extinguish a battery fire.

FIRE-FIGHTING PROCEDURES: Wear full protective gear, including self-contained breathing apparatus

UNUSUAL FIRE AND EXPLOSION HAZARDS: Cells may vent when subjected to excessive heat-exposing battery contents.

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide, carbon dioxide, lithium oxide fumes.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

The material contained within the batteries is only expelled under abusive conditions. Use a shovel and cover the battery with sand or vermiculite, place in an approved container and dispose in accordance with section 13.

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

If the battery material is released, remove personnel from the area until fumes dissipate. Provide maximum ventilation to clear out hazardous gasses. Leave the area and allow the battery to cool end vapors to dissipate. Avoid skin and eye contact or inhalation of vapors.

## SECTION 7: HANDLING AND STORAGE

HANDLING: Do not expose the battery or internal cells to extreme temperatures or fire. Do not disassemble, crush or puncture the battery. The battery may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures.

STORAGE: Insulate positive and negative terminals to avoid short circuits. Avoid mechanical or electrical abuse. Store in a cool, dry and ventilated area, which is subjected to little temperature changes. Storage at high temperatures should always be avoided. Do not place the battery near heating equipment or exposed to direct sunlight for long periods.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

BREATHING PROTECTION: Not necessary under conditions of normal use. In case of battery venting or rupture use a self-contained full-face respirator mask.

EYE PROTECTION: Not necessary under conditions of normal use. In case of battery rupture or leakage, use safety goggles.

SKIN/ HAND PROTECTION: Not necessary under conditions of normal use. In case of battery rupture or leakage, wear a rubber apron and Viton rubber gloves.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|---|---|---|---|
| **Physical State:** | Solid | **Odor Type:** | Smells of medical ether |
| **Appearance:** | Battery | **Odor Threshold:** | N/A |
| **pH:** | N/A | **EvaporativeRate: (n-ButylAcetate=1)** | N/A |
| **Relative Density:** | N/A | **Auto Ignition Temperature (°C):** | N/A |
| **Boiling Point:** | N/A | **Flammability Limits (%):** | N/A |
| **Melting Point:** | N/A | **Vapor Pressure: (mm Hg @ 20 °C)** | N/A |
| **Viscosity:** | N/A | **Vapor Density: (Air = 1)** | N/A |
| **Oxidizing Properties:** | N/A | **Solubility in Water:** | Insoluble |
| **Flash Point and Method (°C)** | N/A | **Water/ Oil distribution coefficient:** | N/A |

## SECTION 10: STABILITY AND REACTIVITY

STABILITY: Product is stable under conditions described in Section 7.

CONDITIONS TO AVOID: Heating, mechanical and electrical abuse.

HAZARDOUS DECOMPOSITION PRODUCTS: N/A

HAZARDOUS POLYMERIZATION: N/A

INCOMPATIBILITY (MATERIALS TO AVOID): If leaked, avoid all contact with strong oxidizers,mineral acids,strong alkalis,halogenated hydrocarbons.

## SECTION 11: TOXICOLOGICAL INFORMATION

Inhalation, skin contact, and eye contact are possible when the battery is opened. Exposure to internal contents can lead to corrosive fumes which will be very irritating to the skin, eyes and mucous membranes.

Overexposure can cause symptoms of non-fibroid lung injury and membrane irritation.

## SECTION 12: ECOLOGICAL INFORMATION

When properly used and/or disposed of, the batteries do not represent environmental hazards.

## SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Recycling is encouraged. Dispose of in accordance with local, state and federal laws and regulations.

USA/CANADA: Dispose of in accordance with local, state and federal laws and regulations.

## SECTION 14: TRANSPORT INFORMATION

Hazard Classification: The goods are complied with the requirements of Section IA of Packing Instructions 965 of 63rd DGR Manual of IATA(2022 edition), IMDG CODE(Amdt.40-20)(2020 Edition), including the passing of the UN38.3 test.

SHIPPING BY ROAD:

ADR proper shipping name: Lithium Ion Batteries

Class: 9

UN no.: 3480

Label: Class 9 lithium battery hazard label

## SECTION 15: REGULATORY INFORMATION

Law information

《Dangerous Goods Regulations》

《Recommendations on the Transport of Dangerous Goods Model Regulations》

《International Maritime Dangerous Goods》

《Technical Instructions for the Safe Transport of Dangerous Goods》

《Classification and code of dangerous goods》

《Occupational Safety and Health Act》(OSHA)

《Toxic Substance Control Act》(TSCA)

《Consumer Product Safety Act》(CPSA)

《Federal Environmental Pollution Control Act》(FEPCA)

《The Oil Pollution Act》(OPA)

《Superfund Amendments and Reauthorization Act TitleⅢ (302/311/312/313)》(SARA)

《Resource Conservation and Recovery Act》(RCRA)

《Safety Drinking Water Act》(CWA)

《California Proposition 65》

《Code of Federal Regulations》(CFR)

In accordance with all Federal,State and local laws.

## SECTION 16: ADDITIONAL INFORMATION

THE INFORMATION ABOVE IS BELIEVED TO BE ACCURATE AND REPRESENTS THE BEST INFORMATION CURRENTLY AVAILABLE TO US. HOWEVER, BATTELEC MAKES NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY,EXPRESSED OR IMPLIED,WITH RESPECT TO SUCH INFORMATION, AND WE ASSUME NO LIABILITY RESULTING FROM ITS USE. USERS SHOULD MAKE THEIR OWN INVESTIGATIONS TO DETERMINE THE SUITABILITY OF THE INFORMATION FOR THEIR PARTICULAR PURPOSES. ALTHOUGH REASONABLE PRECAUTIONS HAVE BEEN TAKEN IN THE PREPARATION OF THE DATA CONTAINED. IT IS OFFERED SOLELY FOR YOUR INFORMATION, CONSIDERATION AND INVESTIGATION. THIS MATERIAL SAFETY DATA SHEET PROVIDES GUIDELINES FOR THE SAFE HANDLING AND USE OF THIS PRODUCT; IT DOES NOT AND CANNOT ADVISE ON POSSIBLE SITUATIONS,THEREFORE, YOUR SPECIFIC USE FOR THIS PRODUCT SHOULD BE EVALUATED TO DETERMINE IF ADDITIONAL PRECAUTIONS ARE REQUIRED.