



Zibo Torch Energy Co., LTD.

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MATERIAL SAFETY DATA SHEET

1 IDENTIFICATION

PRODUCT NAME: lead battery(WITHOUT ELECTROLYTE)

SIZE: ALL(GB,DIN,BS,DG, CAPACITY 165AH,VOLTAGE:2V)

EMERGENCY TELEPHONE NUMBER: +86 533 2996234

ENVIRONMENTAL HEALTH&SAFETY INFORMATION:+86 533 2996905

2 COMPOSITION/INFORMATION ON INGREDIENTS

ingredient	CAS no	percent	TLV
Lead	7439-92-1	90	50ug/m ³
Antimony	7440-36-0	0.2	500 ug/m ³
Tin	7440-31-5	0.006	2000 ug/m ³
Polypropylene	9003-07-0	N/A	N/A
polystyrene	9003-53-6	N/A	N/A
N/A: not applicable			

3 PHYSICAL DATA

Boiling point	>1380°C	Specific gravity	9.6
Melting point	252°C to 360°C	Vapor/density/pressure	NA
Solubility in water	insignificant	Evaporation rate/%volatile	NA
Appearance and odor	Gray metal, no apparent odor		

4 FIRE & EXPLOSION HAZARD DATA

Inorganic lead compound is not a combustible material, nor will it explode under conditions of normal use.

Flash point: NA

Flammable limits: NA

Extinguishing media: CO₂; foam; dry powder

Specific fire procedures: wear full body protective clothing and self contained breathing apparatus with positive pressure and full-face piece.

Unusual fire and explosion hazards: To avoid risk of fire or explosion, keep sources of ignition away from batteries. Follow manufacturer's instructions for installation and service.

5 ACCIDENTAL RELEASE MEASURES

Remove all sources of ignition. Wear appropriate personal protective apparatus. Use Non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container.

6 HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE:

Lead compound: Symptoms of toxicity include headache, fatigue, abdominal pain, loss of appetite, muscular aches and weakness, sleep disturbances and irritability.

Inhalation: inhalation of lead dust or fumes may cause irritation of upper respiratory tract and lungs.

7 EMERGENCY AND FIRST AID PROCEDURES:

Inhalation: remove from exposure, gargle, wash nose and lips; consult physician.

Skin: wash immediately with soap and water.

Lead: flush immediately with large amount of water for at least 15 minutes; consult physician.

8 REACTIVITY DATA

Stability: stable

Conditions to avoid: sources of ignition

Incompatibility: material to avoid

Lead compounds: Avoid contact with strong acids, bases, halides, halogenated, potassium nitrate, permanganate, and reducing agents.

Hazardous Decomposition Products:

Lead compounds: high temperatures likely to produce toxic metal fume, vapor or dust.

9 PRECAUTIONS FOR SAFE HANDLING AND USE

Spill or leak procedures:

Lead dust should be vacuumed or wet-swept.

Waste disposal methods:

Spent batteries: send to secondary lead smelter for recycling.

Place neutralized slurry into sealed containers and handle as applicable with state and federal regulations. Large water-diluted spills, after neutralization and testing, should be managed in accordance with approved local, state requirements.

Handling and storage:

Store batteries in cool, dry, well-ventilated areas with impervious surfaces and adequate containment in the event of spills. Batteries should also be stored under roof for protection against adverse weather conditions. Separate from

incompatible materials. Store and handle only in areas with adequate water supply and spill control.

Avoid damage to container. Keep away from fire, sparks and heat.

10 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	MANUFACTURED ARTICLE
ODOR:	Odorless
LEAD:	
BOILING POINT:	Greater than 2516° F
MELTING POINT:	486 to 680° F
SOLUBILITY WATER:	Insoluble
EVAPORATION RATE:	NA
(BUTYL ACETATE=1)	
SPECIFIC GRAVITY(H ₂ O=1):	9.6-11.3
VAPOR PRESSURE/DENSITY:	NA
(%)VOLATILES BY WEIGHT:	NA
APPEARANCE AND ODOR:	Bluish gray metal, no appear odor

11 CONTROL MEASURES

Engineering controls:

Store and handle in well-ventilated area.

Work practice:

Handle batteries cautiously to avoid spills. Make certain vent caps are on securely. Avoid contact with internal components. Wear protective clothing when filling or handling batteries.

Respiratory protection:

None required under normal conditions.

Protective gloves:

Rubber or plastic acid resistant gloves with elbow length gauntlet for use when filling batteries.

Eye protection:

Chemical goggles or face shield for use when filling batteries.

12 TOXICOLOGICAL INFORMATION

Toxic chemical	CAS number	approximate %by wt
Lead	7439-92-1	53
Antimony	7440-36-0	0.2

13 ECOLOGICAL CONSIDERATION

Refer to the latest revision of the OSHA general industry standards.

14 DISPOSAL CONSIDERATION

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or

contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Disposal of container and unused contents in accordance with federal, state and local requirements.

15 TRANSFER INFORMATION

These are “batteries, dry” and are not considered to be a “hazardous material” per the Dept. of transportation (USDOT) regulations or “dangerous goods” per the International Air Transportation Association(IATA) regulations.

VESSEL-IMO-IMDG:

The international transportation of dry batteries is NOT regulated by the international Maritime Dangerous Goods Code(IMDG) as a hazardous material.

16 OTHER REGULATORY INFORMATION

RCRA: Spent lead batteries are not regulated as hazardous waste by the EPA when recycled, however state and international regulations may vary.

CAA: Supports preventative actions concerning ozone depletion in the atmosphere due to emissions of CFC’ s and other ozone depleting chemicals (ODC’S), defined by the USEPA as class 1 substances. Pursuant to Section 611 of the Clean Air Act Amendments(CAAA) of 1990, finalized on January 19.1993.

17 OTHER INFORMATION

This product contains lead, a chemical known to cause cancer and reproductive harm.

Batteries also contain chemicals known to cause cancer.

Wash hands after handling.

Avoid breath dust.

2022.Jan.1

