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SMOORE RESEARCH INSTITUTE, SHENZHEN SMOORE TECHNOLOGY LIMITED

Report No.: RS202104190021

MSDS Report

Sample Name	E-cigarette Battery
Model	M3
Cell Model	EVE 95520CX
Nominal Voltage	3.7 V
Rated Capacity	350 mAh, 1.30 Wh
Prepared By	Shenzhen Smoore Technology Limited
Address	Building 16, DongCai Industrial Park, Gushu Town, Baoan District, Shenzhen, P.R. China.

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2021.04.21

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2021.04.21

Seal:





Material Safety Data Sheet

Section 1 - Chemical Product and Company Identification

Sample description: E-cigarette Battery

Supplier Name: Shenzhen Smoore Technology Limited

Supplier Address: Building 16, DongCai Industrial Park, Gushu Town, Baoan District, Shenzhen, P.R. China.

Post Code: 518102

Tel: +86-0755-33092888

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E-mail: terry.zhu@smoorecig.com

<http://www.smoorecig.com>

Section 2 - Hazards Identification

Classification of danger:

See section 14.

Primary route(s) of exposure:

Eye, skin contact, ingestion.

Health hazard:

The devices are not hazardous when used according to the instructions of manufacturer under normal conditions.

In case of abuse, there's hazard of rupture, leakage of internal components, which could cause casualty loss. Abuses including but not limited to the following cases: charged for long time, short circuited, put into fire, whacked with hard object, punctured with acute object, crushed, and broken.





Section 3 - Composition/Information on Ingredients

Chemical Category: Mixture of the substances listed below

Chemical Name	CAS Number	Weight (%)	Chemical Name	CAS Number	Weight (%)
Copper	7740-50-8	15.0	Zinc	7440-66-6	21.1
Silica Gel	112926-00-8	1.1	Cotton	N/A	0.1
Stainless Steel	12597-68-1	1.6	NdFeB	N/A	2.7
PC	25037-45-0	0.4	Aluminum	7429-90-5	33.3
Cell	N/A	24.7	/		

Cell

Chemical Name	CAS Number	Weight (%)
LiCoO ₂	12190-79-3	≤45
Graphite	7782-42-5	25-35
PVDF	24937-79-9	<2
Acetylene Black	1333-86-4	0.5-3
Electrolyte	623-53-0/21324-40-3	10-18

Note: CAS number is chemical Abstract Service Registry Number.

N/D=Not Detected.



Section 4 - First Aid Measures

General information: No special measures required.

Skin Contact, Eye Contact, Inhalation and Ingestion:

Skin: Remove contaminated clothing and shoes immediately, and rinse skin with plenty of water or shower for 15 minutes. Get medical aid.

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Inhalation: Remove from exposure and move to fresh air immediately. Use oxygen if available. Get medical aid.

Ingestion: Give at least 2 glasses of milk or water. Induce vomiting unless patient is unconscious. Seek medical attention.

Section 5 - Fire Fighting Measures

Characteristics of hazard:

Combustion generates toxic fumes. Dusts at sufficient concentrations can form explosive mixtures with air. Battery may burst and release hazardous decomposition products when exposed to a fire situation. Lithium ion batteries contain flammable electrolyte that may vent, ignite and produce sparks when subjected to high temperature (>150°C). When damaged or abused, may burn rapidly with flare-burning effect, may ignite other batteries in close proximity.

Hazardous combustion product:

Carbon dioxide.

Fire-extinguishing methods and extinguishing media:

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. For small fires, use water spray, dry chemical, carbon dioxide or chemical foam. Water can be used to cool fire exposed containers.

Attention in fire-extinguishing:

Wear self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.



Section 6 - Accidental Release Measures

At long industrial condition, reference as follow:

Personal Precautions, protective equipment, and emergency procedures:

In case of rupture. Attention! Corrosive material. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.

Use personal protective equipment as required. Evacuate personal to safe areas. Keep people away from and upwind of spill/leak. Refer to protective measures listed in sections 7 and 8.

Environmental Precautions:

Prevent product from contaminating soil and from entering sewers or waterways.

Methods and materials for containment:

Stop the leak if safe to do so. Contain the spilled liquid with dry sand or earth, clean up spills immediately.

Methods and materials for cleaning up:

Absorb spilled material with an inert absorbent (dry sand or earth). Scoop contaminated absorbent into an acceptable waste container. Collect all contaminated absorbent and dispose of according to directions in Section 13. Scrub the area with detergent and water. Collect all contaminated wash water for proper disposal.

It is recommended to discharge the battery to the end, handing in the abandoned batteries to related department unified, dispose of the batteries in accordance with approved local, state, and federal requirements. Consult state environmental protection agency and/or federal EPA.



Section 7 - Handling and Storage

At long industrial condition, reference as follow:

Handling

The battery may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short circuit terminals, or over charge the battery, forced over-discharge, throw to fire. Do not crush or puncture the battery, or immerse in liquids.

Storage

Store in a cool, dry, well-ventilated area away from incompatible substances. Store locked up. Keep out of the children. Keep away from incompatible substances, such as strong oxidizing agents.

Other Precautions

In case of rupture. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Use personal protection equipment.

Section 8 – Exposure controls, Personal Protection

Engineering Controls

Keep workroom concentration below current applicable OSHA safety and health requirements. If necessary, configure the explosion-proof, anti-static devices, showers, eyewash stations and ventilation systems.

Exercise good industrial hygiene practice. Wash after handling, especially before eating and drinking. Immediately remove all soiled and contaminated clothing. Store protective clothing separately.

Personal Protective Equipment

Eye and face protection: none required for consumer use. If there is a hazard of contact: Tight sealing safety goggles, Face protection shield.

Skin and body protection: none required for consumer use. If there is a hazard of contact: wear protective gloves and protective clothing.

Respiratory protection: no protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.



Section 9 - Physical and Chemical Properties

Physical State:

Appearance	Cylindrical
Odor	Odorless. If leaking, smells of medical ether.
pH:	Not applicable as supplied.
Flash point:	Not applicable unless individual components exposed.
Flammability:	Not applicable unless individual components exposed.
Relative density:	Not applicable unless individual components exposed.
Solubility (water):	Not applicable unless individual components exposed.
Solubility (other):	Not applicable unless individual components exposed.

Section 10 - Stability and Reactivity

Chemical Stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Exposure to moisture over prolonged periods, strong heating, fire, mechanical abuse and electrical abuse.

Incompatible materials

Acids, Oxidizing agents, Bases.

Hazardous decomposition products

Carbon oxides. If leaked, forbid to contact with strong oxidizers, mineral acids, strong alkalis, halogenated hydrocarbons.



Section 11 - Toxicological Information

Irritation

In the event of exposure to internal contents, vapor fumes may be very irritating to the eyes and skin.

Sensitization

Not available

Reproductive toxicity

Not available

Toxicologically synergistic materials

Not available

Section 12 - Ecological Information

General note:

When promptly used or disposed not present environmental hazard. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. When disposed, keep away from water, rain and snow.

**Anticipated behavior of a chemical product in environment/possible environmental impact/
ecotoxicity.**

Not available.



Section 13 - Disposal Considerations

Waste Treatment

Recycles or dispose of must comply with federal, state and local regulations.

Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Attention for waste treatment

Deserted batteries shouldn't be treated as ordinary trash. Shouldn't be thrown into fire or placed in high temperature. Shouldn't be dissected, pierced, crushed or treated similarly. Best disposal method is recycling.

If batteries are still fully charged or only partially discharged, they can be considered a reactive hazardous waste because of significant amount of not reaction or unconsumed lithium remaining in the spent battery. The battery must be neutralized through an approved secondary treatment facility prior to disposal as a hazardous waste. Recycling of battery can be done in authorized facility, through licensed waste carrier.

Lithium ion cell batteries are labeled in compliance with the EU Battery directive 2006/66/EC.

Section 14 - Transport Information

Proper shipping name: E-cigarette Battery

UN number: 3481.

Class or division: 9 (Not subject to these regulations).

Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises.

ICAO/IATA: Can be shipped by air in accordance with ICAO (International Civil Aviation Organization), TI or IATA (international air transport association), DGR Packing Instruction (PI) 966 / PI967 section II appropriate of 62st DGR Manual of IATA for transportation.

IMDG CODE: The batteries are not restricted to IMDG Code 2018 Edition (Amdt. 39-18) according to special provision 188.



In addition, to be permitted in the transport each lithium cell and battery types must have passed the applicable tests set out in subsection 38.3 of the UN manual of tests and criteria.

Separate batteries to prevent short-circuiting and they should be packed in strong package during transport, Lithium cell or battery should incorporate a safety venting device or be designed to prevent a violent rupture under normal transport conditions. Keep away from high temperature and open flames.

Note: The net quantity of lithium ion battery contained in the package does not exceed 5kg.

Transport fashion: by air, by sea, by road.

Section 15 - Regulatory Information

Law Information

《Dangerous Goods Regulations》

《Recommendations on the Transport of Dangerous Goods-Model Regulations》 (20th revised edition)

《Recommendations on the Transport of Dangerous Goods-Manual of Tests and Criteria》

《International Air Transport Association》 (IATA)

《International Maritime Dangerous Goods》

《Technical Instructions for the Safe Transport of Dangerous Goods》

《Classification and code of dangerous goods》 (GB 6944-2012)

《2012 OSHA Hazard Communication Standard》 (29 CFR 1910.1200)

《Toxic Substances Control Act》 (TSCA)

《Code of Federal Regulations》 (CFR)

In accordance with all Federal, State and local laws.



Section 16 - Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

The data/information contained herein has been review and approved for general released on the basis that this document contains no export controlled information.

*******End of Report*******