1. Identification Of Substance

Product Details

Product Name: EFEST 21700 4000MAH 3.7V BATTERY

Product Model: 21700 4000mah

Manufacturer/Supplier By: SHENZHEN FEST TECHNOLOGY CO., LTD

SAR 1980 Cultural Industry Park, Minfu Road, Minzhi, Longhua New District, Shenzhen, Guangdong, China

Emergency Tel: +86-755-89304183

Fax: +86-755-27764602

2. Composition/Data On Components

COMPONENT	CAS #	% by wt.
Lithium Cobalt Dioxide	12190-79-3	38.80%
Aluminum	7429-90-5	5.56%
PVDF	24937-79-9	1.17%
Graphite	7782-42-5	24.2%
Copper	7440-50-8	9.6%
SBR	9003-55-8	1.76%
Polyethylene	9002-88-4	0.09%
Polypropylene	9003-07-0	0.80%
Lithium Hexafluorophosphate	21324-40-3	15.30%
Electrolyte Carbonate Carbonate	/	2.72 %

3. Hazards Identification

Information pertaining to particular dangers for man and environment:

The product has to be labeled due to the calculation procedure of international guidelines.

Irritating to skin.

Risk of serious damage to eyes.

May cause sensitization by inhalation and skin contact.

Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

4. First aid Measures

Eyes:	Irrigate thoroughly with water for at least 15 minutes. Obtain medical attention.
Skin:	Wash off skin thoroughly with water. Remove contaminated clothing and wash before reuse. In severe cases obtain medical attention.
Inhalation:	Remove from exposure, rest and keep warm. In severe cases obtain medical attention.
Ingestion:	Wash out mouth thoroughly with water and give plenty of water to drink. Obtain medical attention.
Further treatment:	All cases of eye contamination, persistent skin irritation and casualties who have swallowed this substance or been affected by breathing its vapours should be seen by a Doctor.

5. Fire Fighting Measures

Hazardous Combustion Products:	When burned, hazardous products of combustion including fume of carbon monoxide and carbon dioxide can occur.
Extinguishing Media:	Water, carbon dioxide, dry chemical or foam.
Basic Fire Fighting Procedures:	Wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6. Accidental Release Measures

Person related measures:	Wear personal protective equipment adapted to the situation (protection gloves, face protection, breathing protection).
Environment protection measures:	Bind released ingredients with powder (rock salt, sand). Dispose off according to the local law and rules. Avoid leached substances to penetrate into the earth, canalization or water.
Treatment for cleaning:	If battery casing is dismantled, small amounts of electrolyte may leak. Package the battery tightly including ingredients together with lime, sand or rock salt. Then clean with water.

7. Handling And Storage

Guideline for safe handling:

Always follow the warning information on the batteries and in the manuals of devices. Only use the recommended battery types.

Keep batteries away from children.

For devices to be used by children, the battery casing should be protected against unauthorized access.

Unpacked batteries shall not lie about in bulk.

In case of battery change always replace all batteries by new ones of identical type and brand.

Do not swallow batteries.

Do not throw batteries into water.

Do not throw batteries into fire.

Avoid deep discharge.

Do not short-circuit batteries

Use recommended charging time and current.

Storage:

Storage preferably at room temperature (approx. 20℃).

Avoid large temperature changes.

Do not store close to heating devices.

Avoid direct sunlight. At higher temperature the electrical performance may be reduced.

Storage of unpacked batteries can cause short circuit and heat generation.

Storage of large amounts: If possible, store the batteries in original packaging (because of short circuit protection and exemptions according to transport regulations).

A fire alarm is recommended.

For automatic fire extinction consider chapter 5 “Fire fighting measures”.

8. Exposure Controls And Personal Protection

Under normal conditions (during charge and discharge) release of ingredients does not occur.

In the event of release of ingredients, the following TLVs have to be considered (U.S.A.):

Material TLV*

Cobalt and compounds: 0.1 mg/m3 (TWA)

Graphite: C 5.0 mg/m3 (TWA)

*Source: OSHA CFR 29 1910.1000 Table Z-1, 2 or 3 3-01-2007.

9. Physical And Chemical Properties

Nominal Voltage:	3.7V
Capacity:	4000mah
Watt-hour:	14.8Wh
Appearance characters:	Purple with odorless battery

10. Stability And Reactivity

Thermal decomposition / conditions to be avoided:	No decomposition if used according to specifications.
Dangerous Reactions:	No dangerous reactions known.
Dangerous products of decomposition:	No dangerous decomposition products known.

11. Toxicological Information

Primary irritant effect:	None, unless battery ruptures. In the event of exposure to internal contents, corrosive fumes will be very irritating to skin, eyes and mucous membranes. Overexposure can cause symptoms of non-fibrotic lung injury and membrane irritation.
Inhalation:	Lung irritant.
Skin contact:	Skin irritant
Eye contact:	Eye irritant.
Ingestion:	Tissue damage to throat and gastro-respiratory tract if swallowed.
Medical conditions generally aggravated by exposure:	In the event of exposure to internal contents, eczema, skin allergies, lung injuries, asthma and other respiratory disorders may occur.

12. Ecological Information

General notes:	Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13. Disposal Considerations

Waste Disposal Method:	Waste Lithium ion batteries are classified by the federal government as non-hazardous waste and are safe for disposal in the normal municipal waste stream. Large quantities of open batteries should be treated as hazardous waste.

Dispose of in accordance with state regulations.

Do not incinerate, since batteries may explode at excessive temperatures.

14. Transport Information

Lithium ion batteries are tested according to IATA dangerous goods regulations 60th edition 2019 and all applicable carrier and government regulations and 38.3 of the "UN Manual of Tests and Criteria" for compliance with the requirements of special provisions ADR 188, IMDG 188, DOT / 49 CFR § 173.102, 49 CFR Part 171 Subpart C. 49 CFR Parts 171 – 180, 49 CFR 175 and the requirements of IATA DGR packing instruction 965 Section IB or 966 Section I and SP A201, A213, A334 are otherwise "excepted" from the requirements of the regulations.

PI 965 Section IB Limit per package: Pax A/C = Forbidden CAO = 10 kg.

PI 966 Section I Limit per package: Pax A/C = 5 kg CAO = 35 kg

Each package is labeled with lithium battery handing label UN CLASS: UN3480 or UN3481. Positive test results required for classification as "non-restricted" are stated in dedicated "Declarations of Conformity". In addition, the following conditions for non-dangerous goods classification are fulfilled by our products in original

There is no hazards in accordance with the UN recommendations tests (Manual of Tests and Criteria, Part III, sub-section 38.3, 1.2m Drop)

No.	ITEMS	RESULT	REMARKS
1	Altitude Simulation	Pass	
2	Thermal Shock	Pass	
3	Vibration	Pass	
4	Shock	Pass	
5	External Short	Pass	
6	Impact/Crush	Pass	For cell only
7	Overcharge	Pass	
8	Forced Discharge	Pass	For cell only
9	1.2m Drop Test	Pass	

Each consignment is accompanied with a document with an indication that:

the package contains lithium ion cells;
the package must be handled with care, and that a flammability hazard exists if the package is damaged;
special procedures must be followed in the event the package is damaged, to include inspection and repacking if necessary; and a telephone number for additional information.

Transport fashion: By air, by sea.

15. Regulations

•Sara

· Section 355 (extremely hazardous substances):
None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):
None of the ingredient is listed.

· TSCA (Toxic Substances Control Act):
None of the ingredient is listed.

Material Safety Data Sheets (MSDS) are a sub-requirement of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard, 29 CFR Subpart 1910.1200. This Hazard Communication Standard does not apply to various subcategories including anything defined by OSHA as an "article". OSHA has defined "article" as a manufactured item other than a fluid or particle; (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, e.g. minute or trace amounts of a hazardous chemical, and does not pose a physical hazard or health risk to employees.
Because all of our batteries are defined as "articles", they are exempted from the requirements of the Hazard Communication Standard.

16. Other Information

The above information is based on the data of which we are aware and is believed to be correct as of the data hereof. Since this information may be applied under conditions beyond our control and with which may be unfamiliar and since data made available subsequent to the data hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.