Product name: HEV Lithium Ion Battery Cell

11.TOXICOLOGICAL INFORMATION

There is no data available on the product itself. The information of the internal cell materials is as follows.

Lithium Metal Oxide

- Acute Toxicity: TCLo, 2300µg/m3 inhalation-man(As Mn)
- Local effects(skin): Although it is very rare, the rash of the skin and allergic erythema may result.
- Sensitization : The nervous system of respiratory organs may be stimulated sensitively.
- Chronic toxicity/Long term toxicity: By the inhalation of coarse particulate of Manganese Oxide (MnO2), lungs and a nervous system may be affected and bronchitis, pneumonia, a nerve disease, and nerve mental disorder (manganese poisoning) may be produced.
- Carcinogenicity: Nickel and Nickel compound are carcinogenic to humans(group 1: IARC).

Cobalt and cobalt compounds are considered to be possible human carcinogen(group 2B: IARC).

Aluminum

- Health Rating:0 None
- Flammability Rating:1 Slight
- Reactivity Rating:1 Slight
- Contact Rating:0 None
- · Local effects: Aluminum itself has no toxicity.

Graphite

- · Health Rating:0 None
- Flammability Rating:0 None
- Reactivity Rating:0 None
- Contact Rating:1 Slight
- Acute toxicity: Not available.
- Local effects: When it goes into one's eyes, it stimulates one's eyes; conjunctivitis, thickening of corneal epithelium or edematous inflammation palpebra may be caused.
- Chronic toxicity/Long term toxicity: Since the long-term inhalation of high levels of graphite coarse particulate may become a cause of a lung disease or a tracheal disease.
- Carcinogenicity: Graphite is not recognized as a cause of cancer by research organizations and natural toxic substance research organizations of cancer.

Copper

- Health Rating:3 Severe (Life)
- Flammability Rating:1 Slight
- Reactivity Rating:2 Moderate
- Contact Rating:1 Slight
- Acute toxicity:

60-100mg sized coarse particulate causes a gastrointestinal disturbance with nausea and inflammation.

TDLo, hypodermic - Rabbit 375mg/kg

Local effects:

Coarse particulate stimulates a nose and a tracheal.

When it goes into one's eyes, the symptom of the reddening and the pain is caused.

- Sensitization: Sensitization of the skin may be caused by long-term or repetitive contact.
- Reproductive toxicity: TDLo. oral Rat 152mg/kg

Organic electrolyte

- Acute toxicity: LD₅₀, oral Rat 2,000mg/kg or more
- Local effects: There is irritating to eye and skin.
- Skin irritation study: 3 Severe.
- Eye irritation study: 3 Severe.