



## Material Safety Data Sheet(MSDS)

Product name : **GOPRO**  
Trademark : **N/A**  
Model: : **HBR6, HK1BP, HK1B, HK2TR, HK2T, HKJ400.**  
Prepared for : **Shenzhen Haomai Tongda Technology Co., Ltd.**  
Address : **7D62, Longsheng Fittings Mall Huafa North Rd., Huaqiang North Street Futian, Shenzhen , CHINA.**  
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**Section 1 – Chemical Product and Company Identification**

**Product name:** GOPRO  
**Company:** Shenzhen Haomai Tongda Technology Co., Ltd.  
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**MSDS Number:** BKC-180400341R  
**MSDS Date:** Apr. 10, 2018

**Section 2 – Composition/Information on Ingredient**

Product name: GOPRO			
Ingredient	Concentration	CAS NO.	EC No.
Cobalt lithium manganese nickel oxide	35%	182442-95-1	/
Carbon	20%	7440-44-0	231-153-3
Dimethyl carbonate/ Diethyl carbonate/ Ethyl methyl carbonate	16%	616-38-6/ 105-58-8/ 623-53-0	210-478-4/ 203-311-1/-
Copper	9%	7440-50-8	231-159-6
Others	20%	/	/

**Section 3 – Hazards Identification****Classification**

No harm at the normal use. If contact the Electrolyte liquid in the Li-ion Lithium ion battery, reference as follows:

**Classification of the substance or mixture**

Classification according to GHS

Acute Toxicity, Oral(Hazard category 4)

Acute Toxicity, Dermal(Hazard category 3)

Skin, irritate(Cagegory 1B)

Eye Irritate (Hazard category 1)

**GHS Label elements, including precautionary statements:**

GHS02



GHS05



GHS06

**Signal word: Warning****Hazard statement(s):****H242:** Heating may cause a fire;**H311:** Toxic in contact with skin;**H314:** Causes severe skin burns and eye damage;**H302:** Harmful if swallowed;**Precautionary statements:****Prevention:**

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

**Response:**

P312: Call a Poison center or doctor/physician if you feel unwell.

P302+P350-IF ON SKIN: Gently wash with plenty of soap and water

P301+P330+P331-IF SWALLOWED: rise mouth. Do NOT induce vomiting

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**Storage:**

None

**Disposal****P501:** Dispose of contents/container in accordance with local/national regulations**Hazards not otherwise classified (HNOC)**

Not Applicable

**Other information**

No information available.

**Section 4 – First Aid Measures****Skin contact:**

Not anticipated. If the Lithium ion battery is leaking and the contained material contacts the skin, flush with copious amounts of clear water for at least 15 minutes.

**Eye contact:**

Not anticipated. If the Lithium ion battery is leaking and the contained material contacts eyes, flush with copious amounts of clear water for at least 15 minutes. Get medical attention at once.

**Inhalation:**

Not anticipated. If the Lithium ion battery is leaking, remove to fresh air. If irritation persists, consult a physician.

**Ingestion:**

Not anticipated. If the Lithium ion battery is leaking and the contained material is ingested, rinse mouth and surrounding area with clear water at once. Consult a physician immediately for treatment.



## Section 5 – Fire Fighting Measures

### Unusual Fire and Explosion Hazards:

Lithium ion battery may explode or leak potentially hazardous vapors subject to: exposed to excessive heat (above the maximum rated temperature as specified by the manufacturer) or fire, over-charged, short circuit, punctured and crushed.

### Hazardous Combustion Products:

Fire, excessive heat, or over voltage conditions may produce hazardous decomposition products. Damaged batteries can result in rapid heating and the release of flammable vapors.

### Extinguishing Media:

Dry chemical type extinguishers are the most effective means to extinguish a Lithium ion battery fire. A CO<sub>2</sub> extinguisher will also work effectively.

### Fire Fighting Procedures:

Use a positive pressure self-contained breathing apparatus if batteries are involved in a fire. Full protective clothing is necessary. During water application, caution is advised as burning pieces of flammable particles may be ejected from the fire.

## Section 6 – Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

#### Personal Precautions:

Avoid contact with eyes.

Refer to section 8 for personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition.

Evacuate personnel to safe areas.

#### Environmental precautions:

Refer to protective measures listed in Sections 7 and 8.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

#### Methods and material for containment and cleaning up:

Methods for Containment: Prevent further leakage or spillage if safe to do so.

Methods for Cleaning up: Use personal protective equipment. Dam up. Cover liquid spill with sand, earth or other Non-combustible absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.



## Section 7 – Handling and Storage

### Precautions for safe handling:

Handling handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Wear personal protective equipment.

Wash thoroughly after handling. Use this material with adequate ventilation.

The product is not explosive.

### Conditions for safe storage, including any incompatibilities:

If the Lithium-ion Lithium ion battery is subject to storage for such a long term as more than 3 months, it is recommended to recharge the Lithium-ion Polymer Lithium ion battery periodically.

3 months: -10°C~+40°C, 45 to 85%RH

And recommended at 0°C~+35°C for long period storage.

The capacity recovery rate in the delivery state (50% capacity of fully charged) after storage is assumed to be 80% or more.

The voltage for a long time storage shall be 3.8V~4.8V range.

Do not storage Lithium-ion Lithium ion battery haphazardly in a box or drawer where they may short-circuit each other or be short-circuited by other metal objects.

Keep out of reach of children.

Do not expose Lithium-ion Polymer Lithium ion battery to heat or fire. Avoid storage in direct sunlight.

Do not store together with oxidizing and acidic materials.

Keep ignition sources away- Do not smoke.

Store in cool, dry and well-ventilated place.

### Incompatible Products:

None known.

## Section 8 – Exposure Controls, Personal Protection

### Control parameters

Ingredients with limit values that require monitoring at the workplace:

Cobalt lithium manganese nickel oxide

TLV (USA)	0.02mg/m <sup>3</sup>
MAK (Germany)	0.1mg/m <sup>3</sup>

### Other Exposure Guidelines

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962

### Appropriate engineering controls

#### Engineering Measures:

Showers

Eyewash stations

Ventilation systems

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Ensure adequate ventilation.

**Individual protection measures, such as personal protective equipment****Eye/Face Protection:****Tightly sealed goggles****Body protection:**

Protective work clothing.

**Skin protection:****Protective gloves****Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Penetration time of glove material:**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**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.

**Hygiene Measures:**

Handle in accordance with good industrial hygiene and safety practice.

**Section 9 – Physical and Chemical Properties**

<b>Appearance:</b>	Solid
<b>Color:</b>	Black
<b>Odor:</b>	Odorless
<b>PH:</b>	N/A
<b>Vapor pressure:</b>	N/A
<b>Vapor density:</b>	N/A
<b>Boiling point:</b>	N/A
<b>Specific gravity:</b>	N/A
<b>Density:</b>	N/A
<b>Solubility in water:</b>	Insoluble
<b>Nominal Voltage:</b>	5V
<b>Battery Capacity:</b>	400mAH
<b>Size:</b>	26mm×60.5mm×24mm
<b>Power Consumption:</b>	400mA@4.2V



## Section 10 – Stability and Reactivity

**Reactivity:**

Stable under recommended storage and handling conditions (see section 7, Handling and storage).

**Chemical stability:**

Stable under normal conditions of use, storage and transport.

**Thermal decomposition/conditions to be avoided:**

No decomposition if used according to specifications.

**Possibility of Hazardous Reactions:**

None under normal processing.

**Hazardous Polymerization:**

Hazardous polymerization does not occur.

**Conditions to avoid:**

Strong heating, fire, Incompatible materials.

**Incompatible materials:**

Strong oxidizing agents.

Strong acids.

Base metals.

**Hazardous Decomposition Products:**

Carbon oxides, Other irritating and toxic gases.

## Section 11 – Toxicological Information

**Toxicity Data:** Not available.

**Irritation Data:** The internal Lithium ion battery materials may cause irritation to eyes and skin.

## Section 12 – Ecological Information

When promptly used or disposed the Lithium ion battery does not present environmental hazard.

When disposed, keep away from water, rain and snow.

## Section 13 – Disposal Considerations

1. Disposal of the Lithium ion battery should be performed by permitted, professional disposal firms knowledgeable in Federal, State or Local requirements of hazardous waste treatment and hazardous waste transportation.
2. The Lithium ion battery should be completely discharged prior to disposal and/or the terminals taped or capped to prevent short circuit. When completely discharged it is not considered hazardous.
3. The Lithium ion battery contains recyclable materials. Recycling options available in your local area should be considered when disposing of this product, through licensed waste carrier.



## Section 14 – Transport Information

The Rechargeable Li-on Lithium ion battery had been tested according to the requirements of the UN manual of tests and Criteria, Part III, subsection 38.3;

The Rechargeable Li-on Lithium ion battery with a Watt-hour rating not exceeding 100Wh or the cell with a Watt-hour rating in not exceeding of 20Wh, The Rechargeable Li-on Lithium ion battery according to Section II/Section IB of PACKING INSTRUCTION 965, or Section II of PACKING INSTRUCTION 966 ~ 967 of the Dangerous Goods regulations 59th Edition may be transported.

The packaging shall be adequate to avoid mechanical damage during transport, handling and stacking.

The materials and pack design shall be chosen so as to prevent the development of unintentional electrical conduction, corrosion of the terminals and ingress of moisture.

Meets requirements of International Maritime Dangerous Goods(IMDG)-2014 Special Provision 188 to be transported as non-dangerous goods;

Meets the requirements of 49CFR173.185 to be transported as non-dangerous goods for road, rail, air, and vessel.

Meets the requirements of TDG special provision 34 to be transported as non-dangerous goods.

The package must be handled with care and that a flammability hazard exists if the package is damaged;

Each package must be labeled with a Lithium Lithium ion battery handling label or in addition to the Class 9 hazard label. With regard to transport, the following regulations are cited and considered:

- The International Civil Aviation Organization (ICAO) Technical Instructions.

- The International Air transport Association (IATA) Dangerous Goods Regulations.

UN number of lithium Lithium ion battery: UN3480 or UN3481;

UN Proper shipping name/Description (technical name): Lithium ion batteries or Lithium ion batteries contained in equipment or Lithium ion batteries packed with equipment;

UN Classification (Transport hazard class): Non dangerous;

Marine pollutant(Y/N): N;

- The International Maritime Dangerous Goods (IMDG) Code.

For lithium-ion batteries by sea, provided that packaging is strong and prevent the products from short-circuit.

Special Provision: International maritime dangerous goods code (IMDG) 188, 230, 310, 348, 957;

- The US Hazardous Materials Regulation (HMR) pursuant to a final rule issued by RSPA

- The Office of Hazardous Materials Safety within the US Department of Transportations' (DOT)

Research and Special Programs Administration (RSPA)





## Section 15 – Regulatory Information

### Law Information

- 《Dangerous Goods Regulation》
- 《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 Substances Control Act》 (TSCA)
- 《Consumer Product Safety Act》 (CPSA)
- 《Federal Environmental Pollution Control Act》 (FEPCA)
- 《The Oil Pollution Act》 (OPA)
- 《Superfund Amendments and Reauthorization Act Title III (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 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.

\*\*\*\*\* END OF REPORT \*\*\*\*\*