



Pony Testing International Group

Report No. : H12263042016D~1 Date: 01.02.2014 Page 1 of 10

## Material Safety Data Sheet

According to ISO11014:2009 &amp; GB16483-2008

### Section 1 - Chemical Product and Company Identification

**PRODUCT NAME:** Li-ion Battery for Draper stock items  
80962, 80964, 80965, 80966, 82679, 82684,  
82685, 82688, 43080, 43098, 43113, 81138

**APPLICATIONS:** Inspection Lamps.

**SUPPLIER:** Draper Tools Ltd,  
Hursley Road,  
Chandlers Ford,  
Eastleigh,  
Hampshire  
SO53 1YF

Draper Helpline +44 (0) 2380 494344

### Section 2 - Hazards Identification

No harm at the normal use. If contact the electrolyte in the battery, reference as follows:

**Classification of the substance or mixture**

**Classification according to GHS**

Acute toxicity, Oral (Category 4)

Acute toxicity, Dermal (Category 3)

Skin, irritate (Category 1B)

Eyes, irritate (Category 1)

**Label elements**

**Labelling according to Regulation (EC) No 1272/2008[CLP]**

**Hazard pictogram(s):**



**Signal word:** Danger

**Hazard statement(s):** H311: Toxic in contact with skin.

**PONY 谱尼测试**  
Pony Testing International Group

www.ponytest.com

Hotline 400-819-5688

Add: 北京市海淀区苏州街99-3  
19层楼4层

Tel: (010) 82618116

Add: 天津市滨海新区广滨路嘉筑  
大厦10层

Tel: (022) 27360730

Add: 上海市徐汇区桂平路680号  
30号楼4层

Tel: (021) 64861999

Add: 宁波市高新区德明路150号  
二期4号楼4层

Tel: (0574) 87736499

Add: 昆明市盘龙区创业路中兴  
工业城6栋1层

Tel: (0755) 26059909

Add: 广州市海珠区敦和路189号  
海珠科技园2号楼7层

Tel: (020) 89224310

Add: 青岛市崂山区株洲路190  
960室

Tel: (0532) 88706866



Pony Testing International Group

Report No. : H12263042016D~1 Date: 01.02.2014 Page 2 of 10

H314: Causes severe skin burns and eye damage  
H302: Harmful if swallowed.

**Precautionary statement(s):**

Prevention: 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: rinse 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.

Disposal: P501: Dispose of contents/container in accordance with local/national regulations

Other hazards No information available.

### Section 3 - Composition, Information on Ingredients

Chemical characterization: Mixture

Chemical Composition	CAS No.	EC#	Weight (%)
Lithium Cobalt Oxide	12190-79-3	235-362-0	37
Graphite	7782-42-5	231-955-3	25
Isolating Membrane	---	---	0.1
Copper Foil	7440-50-8	231-159-6	10
Aluminum Foil	7429-90-5	231-072-3	4
Stainless Case	---	---	6.3
Lithium Hexafluorophosphate	21324-40-3	244-334-7	0.5
EC	96-49-1	202-510-0	5.7
DEC	105-58-8	212-786-4	5.7
DMC	616-38-6	210-478-4	5.7

**PONY 谱尼测试**  
Pony Testing International Group

www.ponytest.com ☎Hotline 400-819-5688

Add: 北京市海淀区苏州街49-3号智大厦	Add: 上海市徐汇区社平路680号25号楼4层	Add: 深圳市南山区创业路中兴工业城6楼1层	Add: 青岛市崂山区株洲路100号6楼
Tel: (010) 82618116	Tel: (021) 64831999	Tel: (0755) 20050909	Tel: (0532) 88708866
Add: 天津市南开区红卫路聚贤大厦1902	Add: 宁波市高新区新明路130号二期4号楼402	Add: 广州市海珠区敦和路189号海珠科技园3号楼7层	
Tel: (022) 27360730	Tel: (0574) 87736499	Tel: (020) 89224310	



Pony Testing International Group

Report No. : H12263042016D~1 Date: 01.02.2014 Page 3 of 10

## Section 4 - First Aid Measures

### Description of first aid measures

**General information** No special measures required.

#### After eye contact

Flush eyes with plenty of water for several minutes while holding eyelids open. Get medical attention if irritation persists.

#### After skin contact

Remove contaminated clothing and shoes. Immediately wash with water and soap and rinse thoroughly. Wash clothing and shoes before reuse. If irritation occurs, get medical attention.

#### After inhalation

Remove victim to fresh area. Administer artificial respiration if breathing is difficult. Seek medical attention.

#### After swallowing

Do not induce vomiting. Get medical attention.

### Information for doctor:

#### Indication of any immediate medical attention and special treatment needed

No further relevant information available.

## Section 5 - Fire Fighting Measures

**Flammability:** Not available.

### Extinguishing media

#### Suitable extinguishing agents

Use extinguishing agent suitable for local conditions and the surrounding environment .  
Such as dry powder , CO<sub>2</sub>.

#### Special hazards arising from the substance or mixture

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(302°F)), when damaged or abused (e.g. mechanical damage or electrical overcharging); may burn rapidly with flare-burning effect; may ignite other batteries in clothes proximity.

### Advice for firefighters

**PONY 谱尼测试**  
Pony Testing International Group

www.ponytest.com

Hotline 400-819-5688

Add: 北京市海淀区苏州街19号 号盛泰大厦	Add: 上海市徐汇区桂平路690号 25号楼4层	Add: 深圳市南山区创业路中兴 工业园6栋1层	Add: 青岛市崂山区株洲路190 号6层
Tel: (010) 82618110	Tel: (021) 64881999	Tel: (0755) 26050909	Tel: (0532) 88706866
Add: 天津市南开区红旗路聚贤 大厦10层	Add: 宁波市高新区新西路150号 二期4号楼4层	Add: 广州市海珠区敦和路189号 海源科技园3号楼7层	
Tel: (022) 27360730	Tel: (0574) 87736499	Tel: (020) 89224310	



Pony Testing International Group

Report No. : H12263042016D~1 Date: 01.02.2014 Page 4 of 10

**Protective equipment:** Wear self-contained respirator. Wear fully protective impervious suit.

## Section 6 - Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation

### Environmental precautions

Do not allow material to be released to the environment without proper governmental permits.

### Steps to be taken in case material is spilled or released

Remove ignition sources, evacuate area. Sweep up using a method that does not generate dust. Collect as much of the spilled material as possible, placed the spilled material into a suitable disposal container. Keep spilled material out of sewers, ditches and bodies of water.

### Waste disposal method

All waste must refer to the United Nations, the national and local regulations for disposal.

### Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## Section 7 - Handling and Storage

### Handling

#### Precautions for safe handling

Consumption of food and beverage should be avoided in work areas.

Wash hands with soap and water before eating, drinking.

Ground containers when transferring liquid to prevent static accumulation and discharge.

#### Information about fire and explosion protection

Batteries may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.

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

#### Requirements to be met by storerooms and receptacles

Store in a cool, dry, well-ventilated place.

#### Information about storage in one common storage facility

**PONY 谱尼测试**  
Pony Testing International Group

www.ponytest.com ©Hotline 400-819-5688

Add: 北京市海淀区苏州街49-2号 普天大厦 Tel: (010) 82618118	Add: 上海市徐汇区桂平路680号 25号楼4层 (021) 64851999	Add: 深圳市南山区创业路中兴 工业城8楼1层 (0755) 26030909	Add: 青岛市崂山区株洲路190 56号 (0532) 88700866
Add: 天津市南开区红旗路康置 大厦10层 Tel: (022) 27360730	Add: 宁波市高新区新晖路150号 二期4号楼4层 (0574) 87736499	Add: 广州市海珠区敦和路189号 海珠科技园2号楼7层 (020) 89224310	



Pony Testing International Group

Report No. : H12263042016D~1 Date: 01.02.2014 Page 5 of 10

Keep away from heat, avoiding the long time of sunlight.

**Further information about storage conditions**

Keep container tightly sealed.

**Specific and use**

No further relevant information available.

## Section 8 - Exposure Controls, Personal Protection

### Control parameters

Ingredients with limit values that require monitoring at the workplace:	
12190-79-3 Lithium Cobalt Oxide	
TLV (USA)	0.02mg/m <sup>3</sup> .
MAK(Germany)	0.1mg/m <sup>3</sup> .

### Exposure controls

#### Personal protective equipment

#### General protective and hygienic measures

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

#### Respiratory Protection

Use suitable respirator when high concentrations are present.

#### Personal Protection

#### Protection of hands



*Protective gloves*

#### Eye protection



*Tightly sealed goggles*

## Section 9 - Physical and Chemical Properties

**PONY 谱尼测试**  
Pony Testing International Group

www.ponytest.com ©Hotline 400-819-5688

Add: 北京市海淀区苏州街49-1号盈智大厦	Add: 上海市徐汇区桂平路680号25号楼4层	Add: 深圳市南山区创业路中兴工业城8栋1层	Add: 青岛市崂山区株洲路190号6层
Tel: (010) 82618118	Tel: (021) 64881999	Tel: (0755) 26050909	Tel: (0532) 88700866
Add: 天津市南开区红旗路赢策大厦10层	Add: 宁波市高新区新辉路150号二期4号楼4层	Add: 广州市海珠区敦和路189号海珠科技园5号楼7层	
Tel: (022) 27360730	Tel: (0574) 87736499	Tel: (020) 89224310	



Pony Testing International Group

Report No. : H12263042016D~1 Date: 01.02.2014 Page 6 of 10

## Information on basic physical and chemical properties

## General information

Appearance:	Golden.
Form:	Cylindrical.
Odour:	Odorless.
pH:	Not available.
Change in condition	
Melting point:	Not available.
Boiling point:	Not available.
Freezing point:	Not available.
Flash point:	Not available.
Flammability:	Not available.
Ignition temperature:	Not available.
Decomposition temperature:	Not available.
Self-igniting:	Not available.
Danger of explosion:	Not available.
Explosion limits	
Lower:	Not available.
Upper:	Not available.
Oxidizing properties:	
Vapour pressure:	Not available.
Density:	Not available.
Relative density:	Not available.
Vapour density:	Not available.
Evaporation rate:	Not available.
Solubility in/Miscibility with water:	Not available.
n-octanol/water partition coefficient:	Not available.
Viscosity	
Dynamic:	Not available.
Kinematic:	Not available.
Other information:	
Voltage	3.7V
Electric capacity	2200mAh

**PONY 谱尼测试**  
Pony Testing International Group

www.ponytest.com ©Hotline 400-819-5688

Add: 北京市海淀区苏州街49-3号盈智大厦	上海市徐汇区桂平路689号23号84层	深圳市南山区创业路中兴工业城6栋11层	青岛市崂山区株洲路190号6层
Tel: (010) 82618116	(021) 64851995	(0755) 26030909	(0532) 88706866
Add: 天津滨海新区中新道嘉里大厦10层	宁波市高新区福明路150号二期1号楼405	广州市海珠区敦和路189号海珠科技园3号楼7层	
Tel: (022) 27460730	(0574) 87736499	(020) 89224310	



Pony Testing International Group

Report No. : H12263042016D~1 Date: 01.02.2014 Page 7 of 10

## Section 10 - Stability and Reactivity

**Reactivity:** Data not available.

**Chemical stability:** Stable.

**Possibility of hazardous reactions:** Data not available.

**Conditions to Avoid**

Flames, sparks, and other sources of ignition, incompatible materials.

**Incompatibilities**

Oxidizing agents, acid, base.

**Hazardous Combustible Products**

Carbon monoxide, carbon dioxide, lithium oxide fumes.

**Hazardous Polymerization**

N/A.

## Section 11 - Toxicological Information

**Information on toxicological effects**

**Acute toxicity**

**LD/LC50 Values relevant for classification:**

Not available.

**Primary irritant effect**

No further relevant information available.

**Sensitization:**

No further relevant information available.

**Additional toxicological information:**

**Toxicological, metabolism and distribution:**

No further relevant information available.

**Acute effects (acute toxicity, irritation and corrosivity):**

No further relevant information available.

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):**

No further relevant information available.

## Section 12 - Ecological Information

**Toxicity**

**PONY 谱尼测试**  
Pony Testing International Group

www.ponytest.com

Hotline 400-819-5688

Add: 北京市海淀区苏州街19号  
号源智大厦

Tel: (010) 82618118

Add: 天津市南开区红桥区藏宝  
大厦10层

Tel: (022) 27360730

Add: 上海市徐汇区桂平路680号  
33号楼4层

Tel: (021) 64861999

Add: 宁波市高新区前湾路150号  
二期4号楼5层

Tel: (0574) 87736499

Add: 深圳市南山区创业路中兴  
工业城6楼1层

Tel: (0755) 26050909

Add: 广州市海珠区敦和路189号  
海珠科技园3号楼7层

Tel: (020) 89224310

Add: 青岛市崂山区株洲路190  
号6层

Tel: (0532) 88706866



Pony Testing International Group

**Aquatic toxicity:** No further relevant information available.

**Persistence and degradability:** No further relevant information available.

**Behaviour in environmental systems**

**Bioaccumulative potential:** No further relevant information available.

**Mobility in soil:** No further relevant information available.

**Ecological effects**

**Additional ecological information**

**General notes:**

Do not allow material to be released to the environment without proper governmental permits.

**Other adverse effects:** No further relevant information available.

### Section 13 - Disposal Considerations

**Waste treatment methods**

**Recommendation:**

Consult state, local or national regulations to ensure proper disposal.

**Uncleaned packaging**

**Recommendation:** Disposal must be made according to official regulations.

### Section 14 - Transport Information

<b>UN Number</b>	
<b>IATA</b>	UN3480
<b>IMDG</b>	None
<b>Model Regulation</b>	None
<b>UN Proper shipping name</b>	
<b>IATA</b>	Lithium Ion Batteries
<b>IMDG</b>	None
<b>Model Regulation</b>	None
<b>Transport hazard class(es)</b>	
<b>IATA</b>	9
<b>IMDG</b>	None
<b>Model Regulation</b>	None





Pony Testing International Group

<b>Packing group</b>	
IATA	None
IMDG	None
Model Regulation	None
<b>Environmental hazards</b>	
Marine pollutant:	No
Special precautions for user	Not applicable.

**Transport information:** The Lithium Ion Battery (ICR18650) has passed the test UN38.3, according to the report ID: H12263041721D~1.

According to the Packing Instruction 965 section II of IATA DGR 55<sup>th</sup> Edition for transportation.

According to the special provision 188 of IMDG (36-12) or the <<Recommendations On The Transport Of Dangerous Goods-Model Regulations>> (18<sup>th</sup>). The products are not subject to dangerous goods.

More information concerning shipping, testing, marking and packaging can be obtained from Label master at <http://www.labelmaster.com>.

Separate Lithium-ion batteries when shipping to prevent short-circuiting. They should be packed in strong packaging for support during transport. Take in a cargo of them without falling, dropping, and breakage. Prevent collapse of cargo piles and wet by rain.

**Transport Fashion:** By air, by sea, by railway, by road.

### Section 15 - Regulatory Information

This Material Safety Data Sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance or mixture

Composition	CAS#	TSCA	EC#	EINECS
Lithium Cobalt Oxide	12190-79-3	Listed	235-362-0	Listed
Graphite	7782-42-5	Listed	231-955-3	Listed
Copper Foil	7440-50-8	Listed	231-159-6	Listed
Aluminum Foil	7429-90-5	Listed	231-072-3	Listed



Pony Testing International Group

Composition	CAS#	TSCA	EC#	EINECS
Lithium Hexafluorophosphate	21324-40-3	Listed	244-334-7	Listed
EC	96-49-1	Listed	202-510-0	Listed
DEC	105-58-8	Listed	212-786-4	Listed
DMC	616-38-6	Listed	210-478-4	Listed

### Section 16 - Additional Information

#### Abbreviations and acronyms

CLP:	EU regulation (EC) No 1272/2008 on classification, labelling and packaging of chemical substances and mixtures.
CAS:	Chemical Abstracts Service (Division of the American Chemical Society).
ACGIH:	American Conference of Governmental Industrial Hygienists
TLV:	Threshold Limit Value
IATA:	International Air Transport Association
IMDG:	International Maritime Dangerous Goods
LC50:	lethal concentration, 50 percent kill
LD50:	lethal dose, 50 percent kill
TWA	Time Weighted Average
TSCA	United States Toxic Substances Control Act Section 8(b) Inventory
EINECS	European Inventory of Existing Commercial Chemical Substances
Model	Recommendations on the Transport of Dangerous Goods Model
Regulation	Regulations

#### Declare to reader

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.

Prepared by: *Yang Jinghua* Checked by: *chengpeng* Approved by: *Liyao*

MSDS Creation Date: January 2, 2014

\*\*\*End of report\*\*\*

**PONY 谱尼测试**  
Pony Testing International Group

www.ponytest.com ©Hotline 400-819-5688

Add: 北京市海淀区苏州街49-3号源智大厦	Add: 上海市徐汇区桂平路680号25号楼4层	Add: 深圳市南山区创业路中兴工业园6栋1层	Add: 青岛市崂山区株洲路190号402
Tel: (010) 82618116	Tel: (021) 64851999	Tel: (0755) 26050909	Tel: (0532) 88706866
Add: 天津市南开区红旗路藏宝大厦10层	Add: 宁波市高新区明辉路150号二期4号楼4层	Add: 广州市海珠区敦和路189号明珠科技园3号楼7层	
Tel: (022) 27360730	Tel: (0574) 87736499	Tel: (020) 89224310	