



扫微信二维码
关注谱尼测试



Pony Testing International Group

Report No.: MPIWXUGK114197U3

MSDS Report

Sample Name
& Model

Lithium-Ion Battery AP10S9P-27Alu

Applicant

AccuPower Forschungs- Entwicklungs- und Vertriebs-
GmbH.

Address

Pirchaeckerstrasse 27 8053 Graz, Austria



No.: MPIWXUGK114197U3

Code: rku2ihj



北京实验室: (010) 83055000	武汉实验室: (027) 85446975	新疆实验室: (0991) 6684186	太原实验室: (0351) 7555722
上海实验室: (021) 64851999	武汉车附所: (027) 82318175	石家庄实验室: (0311) 85376660	南宁实验室: (0771) 5518818
青岛实验室: (0532) 88706866	长春实验室: (0431) 80530198	西安实验室: (029) 89608785	合肥实验室: (0551) 63843474
深圳实验室: (0755) 26050909	大连实验室: (0411) 87336618	杭州实验室: (0571) 87219096	广州实验室: (020) 89224310
天津实验室: (022) 23607888	哈尔滨实验室: (0451) 58627755	宁波实验室: (0574) 87977185	厦门实验室: (0592) 5568048
苏州实验室: (0512) 62997900	郑州实验室: (0371) 69350670	呼和浩特实验室: (0471) 3450025	成都实验室: (028) 87702708

声 明
Statement

1. 本证明/报告的结论仅对委托方所送样品负责。
The conclusion of the certificate/report is responsible for the provided sample only.
2. 委托方必须如实提供样品, 申报和声明资料, 并保证与实际相符, 否则由委托方承担由此导致的全部后果和责任。
The applicant shall provide accurately and truly the description and statement of the sample, shall guarantee to match the sample and real situation which they provided and declared. Otherwise the application shall bear any relevant consequences and responsibility.
3. 如委托方提供的样品及相关资料存在虚假、伪造等情形, 所造成的全部后果和责任由委托方承担。
In case the sample and documents provided involved in the situation of fake and forgery, any consequences and responsibility caused by this shall be undertaken by applicant.
4. 本证明/报告私自转让、盗用、冒用、涂改、未经本单位批准的复制(全文复制除外)或以其它任何形式的篡改均属无效, 本单位将对上述行为追究其相应的法律责任。
The certificate/report is invalid in case of illegal transfer, embezzlement, imposture, modification or any altering, reproducing except in full, without approval of PONY. PONY shall investigate and affix the applicant's legal liability accordingly.
5. 本证明/报告不考虑国家及经营人差异。
The certificate/report takes no account of the differences of countries and applicants.
6. 本单位有权在完成证明/报告后处理委托方所送样品。
PONY has the right to dispose the provided sample after approval of the certificate/report.

▲ 防伪说明:

- (1) 报告编号是唯一的;
- (2) 报告采用特制防伪纸张印制, 纸张表面带有“PONY”防伪纹路, 该防伪纹路不支持复印, 即复制件不会带有“PONY”防伪纹路;
- (3) 报告采用的防伪纸张内部亦加带有高科技“PONY”防伪水印, 只有在验钞机等紫外线照射下方可显出无色荧光防伪字样。



全国服务热线
400-819-5688

WWW.PONYTEST.COM

扫描二维码

关注谱尼测试微信

公众号 PONY4008195688



北京实验室: (010) 83055000	武汉实验室: (027) 85446975	新疆实验室: (0991) 6684186	太原实验室: (0351) 7555722
上海实验室: (021) 64851999	武汉车附所: (027) 82318175	石家庄实验室: (0311) 85376660	南宁实验室: (0771) 5518818
青岛实验室: (0532) 88706866	长春实验室: (0431) 80530198	西安实验室: (029) 89608785	合肥实验室: (0551) 63843474
深圳实验室: (0755) 26050909	大连实验室: (0411) 87336618	杭州实验室: (0571) 87219096	广州实验室: (020) 89224310
天津实验室: (022) 23607888	哈尔滨实验室: (0451) 58627755	宁波实验室: (0574) 87977185	厦门实验室: (0592) 5568048
苏州实验室: (0512) 62997900	郑州实验室: (0371) 69350670	呼和浩特实验室: (0471) 3450025	成都实验室: (028) 87702708



Material Safety Data Sheet

Reference to ST/SG/AC.10/30/Rev.8 (GHS)

Section 1 - Chemical Product and Company Identification

Chemical Product Identification

Sample Name: Lithium-Ion Battery**Sample Model:** AP10S9P-27Alu**Recommended Uses:** N/A**Restrictions on Use:** N/A**Supplier Name:** AccuPower Forschungs- Entwicklungs- und Vertriebs- GmbH**Address:** Pirchaeckerstrasse 27 8053 Graz, Austria**Phone Number:** 43-316-26291110**FAX:** 43-316-26291136**E-mail:** INFO@ACCUPOWER.AT**Emergency Phone Number:** 43-316-26291110

Section 2 - Hazards Identification

Emergency overview: This product is a battery. Intended use of the product should not result in exposure to the chemical substance. In case of rupture the below hazards exist.

Classification according to GHS

Acute toxicity, oral (4)

Skin corrosion/irritation (2)

Serious eye damage/eye irritation (2A)

Specific target organ toxicity, single exposure; Respiratory tract irritation (3)

Label elements

Hazard pictogram(s):**Signal word:**

Warning

Hazard statement(s):

H302 Harmful if swallowed

H315 Causes skin irritation

H319 Causes serious eye irritation

H335 May cause respiratory irritation

**Precautionary statement(s):****Prevention:**

- P264 Wash skin and clothing thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P280 Wear protective gloves, protective clothing, eye protection, face protection.
 P261 Avoid breathing dust, fume, gas, mist, vapours, spray.
 P271 Use only outdoors or in a well-ventilated area.

Response:

- P301 + P312 IF SWALLOWED: Call a POISON CENTER if you feel unwell.
 P330 Rinse mouth.
 P302 + P352 IF ON SKIN: Wash with plenty water.
 P321 Specific treatment (See additional emergency instructions).
 P333 + P313 If skin irritation or rash occurs: Get medical advice.
 P362 + P364 Take off contaminated clothing and wash it before reuse.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337 + P313 If eye irritation persists: Get medical advice.
 P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P312 Call a POISON CENTER, if you feel unwell.

Storage

- P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
 P405 Store locked up.

Disposal:

- P501 Send contents to approved waste treatment plants.

Other hazards

Physical and chemical hazards: See Section 10

Human health hazards: See Section 11

Environmental hazards: See Section 12

Section 3 – Composition/Information on Ingredients

Chemical characterization: Mixture

Chemical Composition	CAS No.	EC#	Weight (%)
Litium nickel oxide	12325-84-7	---	25~35
Graphite	7782-42-5	231-955-3	20~30



Copper	7440-50-8	231-159-6	5~15
Cobaltate, lithium	12190-79-3	235-362-0	1~5
Propanoic acid, methyl ester	554-12-1	209-060-4	1~5
Aluminium	7429-90-5	231-072-3	1~5
Phosphate(1-), hexafluoro-, lithium	21324-40-3	244-334-7	1~3
4-Fluoro-1,3-dioxolan-2-one	114435-02-8	483-360-5	1~3
Carbonic acid, dimethyl ester	616-38-6	210-478-4	1~3
Polyethylene	9002-88-4	618-339-3	1~3
Carbon black	1333-86-4	215-609-9	0.1~1
Nickel	7440-02-0	231-111-4	0.1~1
Aluminium lithium oxide	11089-89-7	---	0.1~1
Carbonic acid, dilithium salt	554-13-2	209-062-5	0.1~1
Ethyl benzene	100-41-4	202-849-4	0.1~1
Iron	7439-89-6	231-096-4	5-10

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.

Personal protective equipment for first-aid responders: No data available.

Most important symptoms/effects, acute and delayed: No data available.

Indication of immediate medical attention and special treatment needed: Treat symptomatically.



Section 5 - Fire Fighting Measures

Suitable extinguishing media:

Small Fire: Dry chemical, CO₂, water spray or regular foam. Large Fire: Water spray, fog or regular foam. Move containers from fire area if you can do it without risk.

Unsuitable extinguishing media:

No data available.

Specific Hazards arising from the chemical:

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 close proximity.

Specific protective actions for fire-fighters:

Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

Personal precautions:

As an immediate precautionary measure, isolate spill or leak area for at least 25 meters (75 feet) in all directions. Keep unauthorized personnel away. Stay upwind, uphill and/or upstream. Ventilate closed spaces before entering. Large Spill: Consider initial downwind evacuation for at least 100 meters (330 feet).

Protective equipment:

No data available.

Emergency procedures:

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch or walk through spilled material. Absorb with earth, sand or other non-combustible material. Leaking batteries and contaminated absorbent material should be placed in metal containers.

Environmental precautions:

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

Methods and materials for containment and cleaning up:

For all waste handling must refer to United Nations, National and Local Regulations for disposal.

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

Precautions for safe handling:

Avoid short circuiting the battery. Avoid mechanical damage of the battery. Do not open or disassemble. Batteries may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity. Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps.

Conditions for safe storage, including any incompatibilities:

Store in a cool, dry, well-ventilated place. Keep away from heat, avoiding the long time of sunlight.

Section 8 - Exposure Controls/Personal Protection

Control parameters

CAS No.	ACGIH	NIOSH	OSHA
12325-84-7	N/A	N/A	N/A
7782-42-5	TLV-TWA 2mg/m ³	REL-TWA 2.5mg/m ³	PEL-TWA 15mppcf PEL-TWA 20mppcf
7440-50-8	TLV-TWA 0.2mg/m ³ TLV-TWA 1mg/m ³	REL-TWA 1mg/m ³ REL-TWA 0.1mg/m ³	PEL-TWA 0.1mg/m ³ PEL-TWA 1mg/m ³
12190-79-3	N/A	N/A	N/A
554-12-1	N/A	N/A	N/A
7429-90-5	TLV-TWA 1mg/m ³	REL-TWA 2mg/m ³ REL-TWA 5mg/m ³ REL-TWA 10mg/m ³	PEL-TWA 5mg/m ³ PEL-TWA 15mg/m ³
21324-40-3	N/A	N/A	N/A
114435-02-8	N/A	N/A	N/A
616-38-6	N/A	N/A	N/A
9002-88-4	N/A	N/A	N/A
1333-86-4	TLV-TWA 3mg/m ³	REL-TWA 3.5mg/m ³	PEL-TWA 3.5mg/m ³
7440-02-0	TLV-TWA 1.5mg/m ³	REL-TWA 0.015mg/m ³	PEL-TWA 1mg/m ³
11089-89-7	N/A	N/A	N/A



554-13-2	N/A	N/A	N/A
100-41-4	TLV-TWA 20ppm	REL-TWA 100ppm	PEL-TWA 100ppm PEL-TWA 435mg/m ³
7439-89-6	N/A	N/A	N/A

Appropriate engineering controls:

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.

Personal Protective Equipment:

Respiratory protection: Wear suitable protective mask. For a large large number of battery leakages, wear chemical protective clothing, including self-contained breathing apparatus.

Hand Protection: Wear appropriate protective gloves to reduce skin contact.

Eye Protection: Wear safety goggles or eye protection combined with respiratory protection.

Skin and Body Protection: Working environment required, wear suitable protective clothing to minimize contact with skin. The type of protective equipment must be according to the concentration and the content of certain hazardous substances in the workplace.

Section 9 - Physical and Chemical Properties

Information on basic physical and chemical properties

Colour:	Grey.
Physical State:	Prismatic.
Odour:	Not available.
Odour threshold:	Not available.
pH:	Not available.
Melting point/freezing point:	Not available.
Initial boiling point and boiling range:	Not available.
Flash Point:	Not available.
Evaporation rate:	Not available.
Flammability (solid, gas):	Not available.
Explosion Limits (vol% in air):	Not available.
Vapour pressure, kPa at 20°C:	Not available.
Vapor density:	Not available.



Density/Relative density (water = 1):	Not available.
Solubility(ies):	Not available.
Partition coefficient: n-octanol/water:	Not available.
Auto-ignition temperature:	Not available.
Decomposition temperature:	Not available.
Viscosity:	Not available.
Other information:	
Voltage	36V
Electric capacity	27.27Ah
Electric Energy	981.72Wh

Section 10 - Stability and Reactivity

Reactivity: No data available.

Chemical stability: Stable.

Possibility of hazardous reactions: No data available.

Conditions to Avoid: Flames, sparks, and other sources of ignition, incompatible materials.

Incompatible materials: Oxidizing agents, acid base.

Hazardous decomposition products: Carbon monoxide, carbon dioxide, lithium oxide fumes.

Section 11 - Toxicological Information

Acute Toxicity:

CAS No.	LC50/LD50
12325-84-7	No data available.
7782-42-5	No data available.
7440-50-8	No data available.
12190-79-3	No data available.
554-12-1	No data available.
7429-90-5	No data available.
21324-40-3	No data available.
114435-02-8	No data available.
616-38-6	No data available.
9002-88-4	No data available.



1333-86-4	No data available.
7440-02-0	LD50 Rat (oral): >9000mg/kg
11089-89-7	No data available.
554-13-2	No data available.
100-41-4	LD50 Rat (oral): 4769mg/kg; LD50 Rabbit (dermal): 15400mg/kg; LC50 Rat (Inhalation: Vapours): 17.2mg/L
7439-89-6	No data available.

Skin corrosion/irritation: No data available.

Serious eye damage/irritation: No data available.

Respiratory or Skin sensitization: No data available.

Germ Cell mutagenicity: No data available.

Carcinogenicity: No data available.

Reproductive toxicity: No data available.

Specific target organ toxicity-Single exposure: No data available.

Specific target organ toxicity-Repeated exposure: No data available.

Aspiration hazard: No data available.

Information on the likely routes of exposure: No data available.

Eye: No data available.

Skin: No data available.

Ingestion: No data available.

Inhalation: No data available.

Section 12 - Ecological Information

Ecological Toxicity:

CAS# 100-41-4

LC50: 0.4mg/L - crustacea (Brown Shrimp) - 96h

Persistence and degradability: No data available.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available.

Other adverse effects: No data available.

Section 13 - Disposal Considerations

**Disposal 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

UN or ID Number	
IATA	UN3480
IMDG	UN3480
Model Regulation	UN3480
Proper Shipping Name/Description	
IATA	Lithium ion batteries
IMDG	LITHIUM ION BATTERIES
Model Regulation	LITHIUM ION BATTERIES
Class or Div. (Sub Hazard)	
IATA	9
IMDG	9
Model Regulation	9
Packing Group	
IATA	N/A
IMDG	N/A
Model Regulation	N/A
Hazard Label	
IATA	
IMDG	
Model Regulation	
Environmental hazards	
Marine pollutant:	No
Special precautions for user	No information available.

Transport information: The Lithium-Ion Battery AP10S9P-27Alu has passed the test UN38.3, according to the report ID: MPI4C9LC884477U5.

Watt-hour exceeds the standard, so it belongs to dangerous goods. The goods are packaged



according to the packaging Instruction 965 section IA of IATA DGR 62nd Edition for transportation, Cargo aircraft only.

Watt-hour exceeds the standard, so it belongs to dangerous goods. The goods are packaged according to the special provision 230, 348, 384 of IMDG (39-18).

Watt-hour exceeds the standard, so it belongs to dangerous goods. The goods are packaged according to the special provision 230, 348, 384 of <<Recommendations On The Transport Of Dangerous Goods-Model Regulations>> (21st).

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: State of Charge (SoC) not exceeding 30% of their rated capacity. (By air, Lithium ion batteries)

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

Section 15 - Regulatory Information

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

CAS No.	TSCA	IECSC	DSL/NDSL	EINECS/ ELINCS/ NLP
12325-84-7	Listed	Listed	Listed DSL	Listed
7782-42-5	Listed	Listed	Listed DSL	Listed
7440-50-8	Listed	Listed	Listed DSL	Listed
12190-79-3	Listed	Listed	Listed DSL	Listed
554-12-1	Listed	Listed	Listed DSL	Listed
7429-90-5	Listed	Listed	Listed DSL	Listed
21324-40-3	Listed	Listed	Listed DSL	Listed
114435-02-8	Listed	Listed	Listed DSL	Listed
616-38-6	Listed	Listed	Listed DSL	Listed



9002-88-4	Listed	Listed	Listed DSL	Listed
1333-86-4	Listed	Listed	Listed DSL	Listed
7440-02-0	Listed	Listed	Listed DSL	Listed
11089-89-7	Listed	Listed	Listed DSL	Listed
554-13-2	Listed	Listed	Listed DSL	Listed
100-41-4	Listed	Listed	Listed DSL	Listed
7439-89-6	Listed	Listed	Listed DSL	Listed

Section 16 - Other Information

Issue Date: 2021-06-09

Issue Department: Technical department

Modification record:

Notice to reader

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.

Other Information:

CAS: (Chemical Abstracts Service);

EC: (European Commission);

ACGIH: (American Conference of Governmental Industrial Hygienists);

NIOSH: (US National Institute for Occupational Safety and Health);

OSHA: (US Occupational Safety and Health);

TLV: (Threshold Limit Value)

TWA: (Time Weighted Average);

STEL: (Short Term Exposure Limit);

PEL: (Permissible Exposure Level);

REL: (Recommended Exposure Limit);

PC-STEL: (Permissible concentration-short time exposure limit);

PC-TWA: (Permissible concentration-time weighted average);

LC50: (Lethal concentration, 50 percent kill);

LD50: (Lethal dose, 50 percent kill);



IARC: (International Agency for Research on Cancer);
 EC50: (Median effective concentration);
 BCF: (Bioconcentration Factor);
 BOD: (Biochemical oxygen demand);
 NOEC: (No observed effect concentration);
 NTP: (US National Toxicology Program);
 RTECS: (Registry of Toxic Effects of Chemical Substances);
 IATA: (International Air Transport Association);
 IMDG: (International Maritime Dangerous Goods);
 TDG: (Recommendations on the TRANSPORT OF DANGEROUS GOODS Model Regulations);
 TOC: (Total Organic Carbon);
 TSCA: (Toxic Substances Control Act of USA);
 DSL: (the Domestic Substances List of Canada);
 NDSL: (the Non-domestic Substances List of Canada)

End of report