

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 07.09.2020

Version: 1.01

Revision: 24.01.2020

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: **FLEX W 02/04**

Article number: 443.301

1.2 Relevant identified uses of the substance or mixture and uses advised against

Sector of Use

SU21 Consumer uses: Private households / general public / consumers

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Product category PC31 Polishes and wax blends

Application of the substance / the mixture Car care product

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

FLEX - Elektrowerkzeuge GmbH

Bahnhofstraße 15

D-71711 Steinheim

Tel.: +49(0)7144828-0

Fax: +49(0)714425899

E-Mail: info@flex-tool.com

Further information obtainable from: Phone +49(0)7144828-0

1.4 Emergency telephone number: +49 (0)7144828-0 (Only during business hours)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

The product is not classified, according to the CLP regulation.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 Void

Hazard pictograms Void

Signal word Void

Hazard statements Void

Precautionary statements P102 Keep out of reach of children.

Additional information:

EUH210 Safety data sheet available on request.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description: Aqueous formulation of waxes and paint-compatible silicones

Dangerous components:

EC No 926-141-6 Reg.nr.: 01-2119456620-43-xxxx	Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics Alternative CAS number: 64742-47-8 ⚠ Asp. Tox. 1, H304	10 - <15%
EC No 934-956-3 Reg.nr.: 01-2119827000-58-xxxx	Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics Alternative CAS number: 64742-46-7 ⚠ Asp. Tox. 1, H304	1 - <3%
EC No 934-954-2 Reg.nr.: 01-2119826592-36-xxxx	Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics Alternative CAS number: 64742-46-7 ⚠ Asp. Tox. 1, H304	1 - <3%
EC No 920-107-4 Reg.nr.: 01-2119453414-43-xxxx	Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics Alternative CAS number: 64742-47-8 ⚠ Asp. Tox. 1, H304	1 - <3%

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Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information: No special measures required.

After inhalation: No special measures required

After skin contact:

Generally the product does not irritate the skin.

Wash the areas of skin affected with water and a mild detergent.

After eye contact: Rinse opened eye for several minutes under running water.

After swallowing: Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment in accordance with the doctor's assessment of the patient's condition. Symptomatic treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.

5.2 Special hazards arising from the substance or mixture No further relevant information available.

5.3 Advice for firefighters

Protective equipment:

The normal measures for firefighting are to be taken.

Do not enter the hazardous area without a self-contained breathing apparatus.

See Section 8 for information on personal protection equipment.

Additional information

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures Not required.

6.2 Environmental precautions:

Do not allow to penetrate the ground/soil.

Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

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

Dispose contaminated material as waste according to item 13.

6.4 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

7.1 Precautions for safe handling No special precautions are necessary if used correctly.

Information about fire - and explosion protection: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: Provide solvent resistant, sealed floor.

Information about storage in one common storage facility: Store away from foodstuffs.

Further information about storage conditions:

Protect from frost.

Recommended storage temperature: 20 °C.

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7.3 Specific end use(s) No further relevant information available.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics

RCP-TWA (EU)	Long-term value: 1200 mg/m ³ , 165 ppm Vapour / Total Hydrocarbons
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Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics

GERMAN RCP-METHOD (EU)	Long-term value: 600 mg/m ³ 2 (II) / AGW (German TRGS 900)
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Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics

GERMAN RCP-METHOD (EU)	Long-term value: 600 mg/m ³ 2 (II) / AGW (German TRGS 900)
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Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics

GERMAN RCP-METHOD (EU)	Long-term value: 600 mg/m ³ 2 (II) / AGW (German TRGS 900)
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Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

Suitable technical control devices

Ensure good ventilation. This can be achieved by localised extraction or general ventilation. If this is not sufficient to keep the concentration below the occupational exposure limit, suitable breathing protection is to be worn.

Personal protective equipment:

General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.

Respiratory protection:

Not required in normal cases
Ensure good ventilation/exhaustion at the workplace.

Protection of hands: Not required in normal cases.

Eye protection: Not required in normal cases

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form:	Fluid
Colour:	Yellow
Odour:	Fruit-like
Odour threshold:	Not determined.

pH-value at 20 °C:	7.0 - 8.0
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Change in condition

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	100 - 270 °C

Flash point:	Not applicable.
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Flammability (solid, gas):	Not applicable.
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Decomposition temperature:	Not determined.
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Auto-ignition temperature:	Product is not selfigniting.
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Explosive properties: Product does not present an explosion hazard.

Explosion limits:**Lower:**

Explosion limits components:
0,6Vol% (Main ingredient data)

Upper:

Explosion limits components:
7,0Vol.% (Main ingredient data)

Vapour pressure:

Not determined.

Density at 20 °C:0.95 - 0.96 g/cm³**Relative density**

Not determined.

Vapour density

Not determined.

Evaporation rate

Not determined.

Solubility in / Miscibility with water:

Partly miscible.

Partition coefficient: n-octanol/water:

Not determined.

Viscosity:**Flow time at 20 °C**

>60 s (DIN EN ISO 2431/6mm)

Dynamic at 20 °C:

5000 - 8000 mPas

Kinematic at 40 °C:>20.5 mm²/s**9.2 Other information**

No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity No dangerous reactions known.

10.2 Chemical stability Stable under normal conditions.

10.3 Possibility of hazardous reactions No dangerous reactions known.

10.4 Conditions to avoid No further relevant information available.

10.5 Incompatible materials: strong oxidizing agents

10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects There are no toxicological findings on this mixture.

Acute toxicity Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:**Aliphatic and cyclic-aliphatic hydrocarbon mixture:**

Oral	LD50	>5000 mg/kg (rat) (structurally similar material[OECD 401 equivalent])
Dermal	LD50	>5000 mg/kg (rabbit) (structurally similar material[OECD 402 equivalent])
Inhalative	LC50 / 4h	>4951 mg/m ³ (rat) (structurally similar material[OECD 403 equivalent])

Primary irritant effect:

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/irritation Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

None of the ingredients are known to have effects which are carcinogenic, mutagenic or harmful to reproduction.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.

Reproductive toxicity Based on available data, the classification criteria are not met.

STOT-single exposure Based on available data, the classification criteria are not met.

STOT-repeated exposure Based on available data, the classification criteria are not met.

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Aspiration hazardViscosity: > 20,5mm²/s (40°C)

Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1 Toxicity There are no ecotoxicological data available on this mixture.**Aquatic toxicity:****Aliphatic and cyclic-aliphatic hydrocarbon mixture:**

LL0 96h	1000 mg/l (Oncorhynchus mykiss) (structurally similar material)
EL0 / 48h	1000 mg/l (Daphnia magna) (structurally similar material)
EL0 / 72h	1000 mg/l (Pseudokirchneriella subcapitata) (structurally similar material)
NOELR 72 h	1000 mg/l (Pseudokirchneriella subcapitata) (structurally similar material)

12.2 Persistence and degradability**Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics**

Biodegradation 69 % (28d)

Aliphatic and cyclic-aliphatic hydrocarbon mixture:

Biodegradation 67.6 % (28d)

12.3 Bioaccumulative potential No further relevant information available.**12.4 Mobility in soil** No further relevant information available.**Additional ecological information:****General notes:**

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

12.5 Results of PBT and vPvB assessment**PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Not classified as hazardous waste according to Annex III to Directive 2008/98/EC.

Recommendation Waste must be disposed of while observing the local, official regulations.**European waste catalogue**

- 1) Disposal / product
- 2) Disposal / contaminated packaging

12 01 99 wastes not otherwise specified

15 01 02 plastic packaging

SECTION 14: Transport information

14.1 UN-Number

ADR, IMDG, IATA

Void

14.2 UN proper shipping name

ADR

Void

IMDG, IATA

Void

14.3 Transport hazard class(es)

ADR, ADN, IMDG, IATA

Class

Void

14.4 Packing group

ADR, IMDG, IATA

Void

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14.5 Environmental hazards:**Marine pollutant:** No**14.6 Special precautions for user** Not applicable.**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.**UN "Model Regulation":** Void**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****European Directives:**

EC/1907/2006 (REACH)

EC/1272/2008 (CLP)

EC/648/2004

National regulations:**Information about limitation of use:**

Employment restrictions concerning juveniles must be observed.

Employment restrictions concerning pregnant and lactating women must be observed.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

H304 May be fatal if swallowed and enters airways.

Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

NOEL = No Observed Effect Level

NOEC = No Observed Effect Concentration

LC = lethal Concentration

EC50 = half maximal effective concentration

log POW = Octanol / water partition coefficient

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ATE: acute toxicity estimate

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

IOELV = indicative occupational exposure limit values

Asp. Tox. 1: Aspiration hazard – Category 1

Version history and indication of changes: Replaces version 1.00.

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: **FLEX P 03/06-LD**

Article number: 403.377

1.2 Relevant identified uses of the substance or mixture and uses advised against

Sector of Use

SU21 Consumer uses: Private households / general public / consumers

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Product category PC31 Polishes and wax blends

Application of the substance / the mixture Car care product

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

FLEX - Elektrowerkzeuge GmbH

Bahnhofstraße 15

D-71711 Steinheim

Tel.: +49(0)7144828-0

Fax: +49(0)714425899

E-Mail: info@flex-tool.com

Further information obtainable from: Phone +49(0)7144828-0

1.4 Emergency telephone number: +49 (0)7144828-0 (Only during business hours)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

The product is not classified, according to the CLP regulation.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 Void

Hazard pictograms Void

Signal word Void

Hazard statements Void

Precautionary statements P102 Keep out of reach of children.

Additional information:

EUH210 Safety data sheet available on request.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description: Emulsion of solvents, abrasives and additives

Dangerous components:

EC No 920-114-2 Reg.nr.: 01-2119459347-30-xxxx	Hydrocarbons, C14-C19, isoalkanes, cyclics, < 2% aromatics Alternative CAS number: 64742-46-7 ⚠ Asp. Tox. 1, H304	15 - <20%
CAS: 107-98-2 EINECS: 203-539-1 Reg.nr.: 01-2119457435-35-xxxx	1-Methoxy-2-propanol ⚠ Flam. Liq. 3, H226; ⚠ STOT SE 3, H336	3 - <5%

Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information: No special measures required.

After inhalation: Supply fresh air.

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Trade name: FLEX P 03/06-LD

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After skin contact:

Generally the product does not irritate the skin.

Wash the areas of skin affected with water and a mild detergent.

After eye contact: Rinse opened eye for several minutes under running water.**After swallowing:** Do not induce vomiting; call for medical help immediately.**4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment in accordance with the doctor's assessment of the patient's condition. Symptomatic treatment.

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.**5.2 Special hazards arising from the substance or mixture** No further relevant information available.**5.3 Advice for firefighters****Protective equipment:**

The normal measures for firefighting are to be taken.

Do not enter the hazardous area without a self-contained breathing apparatus.

See Section 8 for information on personal protection equipment.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures** Not required.**6.2 Environmental precautions:**

Do not allow to penetrate the ground/soil.

Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Pick up mechanically.

Absorb liquid components with liquid-binding material.

Dispose contaminated material as waste according to item 13.

6.4 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**7.1 Precautions for safe handling** No special precautions are necessary if used correctly.**Information about fire - and explosion protection:** No special measures required.**7.2 Conditions for safe storage, including any incompatibilities****Storage:****Requirements to be met by storerooms and receptacles:** Provide solvent resistant, sealed floor.**Information about storage in one common storage facility:** Store away from foodstuffs.**Further information about storage conditions:**

Store receptacle in a well ventilated area.

Protect from frost.

Recommended storage temperature: 20 °C.

7.3 Specific end use(s) No further relevant information available.**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****Ingredients with limit values that require monitoring at the workplace:****CAS: 107-98-2 1-Methoxy-2-propanol**WEL (Great Britain) Short-term value: 560 mg/m³, 150 ppmLong-term value: 375 mg/m³, 100 ppm

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IOELV (EU)	Short-term value: 568 mg/m ³ , 150 ppm Long-term value: 375 mg/m ³ , 100 ppm Skin
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DNELs**CAS: 107-98-2 1-Methoxy-2-propanol**

Oral	DNEL	3.3 mg/kg (consumer) (long-term / systemic effects)
Dermal	DNEL	18.1 mg/kg (consumer) (long-term / systemic effects) 50.6 mg/kg (worker) (long-term / systemic effects)
Inhalative	DNEL	43.9 mg/m ³ (consumer) (long-term / systemic effects) 553.5 mg/m ³ (worker) (short-term / local effects) 369 mg/m ³ (worker) (long-term / systemic effects)

PNECs**CAS: 107-98-2 1-Methoxy-2-propanol**

PNEC	100 mg/l (STP)	100 mg/l (water (intermittent release)) 10 mg/l (water (fresh water)) 1 mg/l (water (sea water))
PNEC	2.47 mg/kg (gro)	41.6 mg/kg (sediment (fresh water)) 4.17 mg/kg (sediment (sea water))

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls**Suitable technical control devices**

Ensure good ventilation. This can be achieved by localised extraction or general ventilation. If this is not sufficient to keep the concentration below the occupational exposure limit, suitable breathing protection is to be worn.

Personal protective equipment:**General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Respiratory protection:

Not required in normal cases

Ensure good ventilation/exhaustion at the workplace.

Protection of hands: Not required in normal cases.

Eye protection: Not required in normal cases

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties**General Information****Appearance:**

Form:	Emulsion
Colour:	White
Odour:	Solvent-like
Odour threshold:	Not determined.

pH-value: Not applicable.

Change in condition

Melting point/freezing point: Undetermined.
Initial boiling point and boiling range: 100 - 355 °C

Flash point: Not applicable.

Flammability (solid, gas): Not applicable.

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Trade name: FLEX P 03/06-LD

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Decomposition temperature:	Not determined.
Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapour pressure:	Not determined.
Density at 20 °C:	0.98 - 0.99 g/cm ³
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with water:	Partly miscible.
Partition coefficient: n-octanol/water:	Not determined.
Viscosity:	
Kinematic at 40 °C:	>20.5 mm ² /s
9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity No dangerous reactions known.

10.2 Chemical stability Stable under normal conditions.

10.3 Possibility of hazardous reactions No dangerous reactions known.

10.4 Conditions to avoid See Section 7 for information on safe handling.

10.5 Incompatible materials: strong oxidizing agents

10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects There are no toxicological findings on this mixture.

Acute toxicity Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:

Hydrocarbons, C14-C19, isoalkanes, cyclics, < 2% aromatics

Oral	LD50	>5,000 mg/kg (rat) (OECD 401)
Dermal	LD50	>2,000 mg/kg (rabbit) (OECD 402)
Inhalative	LC50/4d	>5,266 mg/l (rat) (Aerosol (OECD 403))

CAS: 107-98-2 1-Methoxy-2-propanol

Oral	LD50	4,016 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
Inhalative	LC0 / 6h	>7,000 ppm (rat)

Primary irritant effect:

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/irritation Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.

Reproductive toxicity Based on available data, the classification criteria are not met.

STOT-single exposure Based on available data, the classification criteria are not met.

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STOT-repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazardViscosity: > 20,5mm²/s (40°C)

Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1 Toxicity There are no ecotoxicological data available on this mixture.

Aquatic toxicity:**Hydrocarbons, C14-C19, isoalkanes, cyclics, < 2% aromatics**

LL0 96h	87,556 mg/l (Oncorhynchus mykiss)
ErL0 72h	1,000 mg/l (Pseudokirchneriella subcapitata)
NOELR 72 h	1,000 mg/l (Pseudokirchneriella subcapitata)
NOELR 21d	5 mg/l (Daphnia magna)
ELO 48 h	1,000 mg/l (Daphnia magna)

CAS: 107-98-2 1-Methoxy-2-propanol

LC50 / 96h	>6,800 mg/l (Leuciscus idus) (DIN38412)
LC50 / 48h	23,300 mg/l (Daphnia magna)
EC50	>1,000 mg/l (Pseudokirchneriella subcapitata) (7d)
EC50/3h	>1,000 mg/l (activated sludge) (OECD 209)

12.2 Persistence and degradability**CAS: 107-98-2 1-Methoxy-2-propanol**

Biodegradation | 90-100 % (OECD 301E)

12.3 Bioaccumulative potential**CAS: 107-98-2 1-Methoxy-2-propanol**

log Kow | ≤0.43 log Kow (25°C)

12.4 Mobility in soil No further relevant information available.

Additional ecological information:

General notes: The product may not be released into the environment without control.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Not classified as hazardous waste according to Annex III to Directive 2008/98/EC.

Recommendation Waste must be disposed of while observing the local, official regulations.

European waste catalogue

- 1) Disposal / product
- 2) Disposal / contaminated packaging

12 01 99 | wastes not otherwise specified

15 01 02 | plastic packaging

SECTION 14: Transport information

14.1 UN-Number

ADR, IMDG, IATA

Void

14.2 UN proper shipping name

ADR, IMDG, IATA

Void

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14.3 Transport hazard class(es)**ADR, ADN, IMDG, IATA
Class**

Void

14.4 Packing group**ADR, IMDG, IATA**

Void

14.5 Environmental hazards:**Marine pollutant:**

No

14.6 Special precautions for user

Not applicable.

14.7 Transport in bulk according to Annex II of**Marpol and the IBC Code**

Not applicable.

UN "Model Regulation":

Void

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****European Directives:**

EC/1907/2006 (REACH)

EC/1272/2008 (CLP)

EC/648/2004

National regulations:**Information about limitation of use:**

Employment restrictions concerning juveniles must be observed.

Employment restrictions concerning pregnant and lactating women must be observed.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H336 May cause drowsiness or dizziness.

Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

NOEL = No Observed Effect Level

NOEC = No Observed Effect Concentration

LC = Lethal Concentration

EC50 = half maximal effective concentration

log POW = Octanol / water partition coefficient

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ATE: acute toxicity estimate

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

IOELV = indicative occupational exposure limit values

Flam. Liq. 3: Flammable liquids – Category 3

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Asp. Tox. 1: Aspiration hazard – Category 1

Version history and indication of changes: Replaces version 2.00.



中国认可
检测
TESTING
CNAS L0748



NO.1117060063

检测报告

Test Report

样品名称： 锂电池包 AP 18.0/5.0 18V 5.0Ah 90Wh

Name of Sample: Li-ion battery pack AP 18.0/5.0 18V 5.0Ah 90Wh

委托单位： 南京德朔实业有限公司

Consignor: /



上海化工研究院检测中心

Shanghai Research Institute of Chemical Industry Testing Centre

上海化工研究院检测中心
检测报告


SRICI Testing Centre Test Report

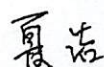
NO. 1117060063

1/11

样品名称 Name of Sample	中文 Chinese	锂电池包 AP 18.0/5.0 18V 5.0Ah 90Wh		
	英文 English	Li-ion battery pack AP 18.0/5.0 18V 5.0Ah 90Wh		
样品编号 Sample No.	1117060063			
委托单位 Consignor	南京德朔实业有限公司 /			
生产单位 Manufacturer	南京德朔实业有限公司 Nanjing Chervon Industry co.,Ltd			
检测方法 Test method	联合国《关于危险货物运输的建议书 试验和标准手册》 ST/SG/AC.10/11/Rev.6 38.3 UNITED NATIONS "Recommendations on the TRANSPORT OF DANGEROUS GOODS" Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 38.3			
判定标准 Criterion	联合国《关于危险货物运输的建议书 试验和标准手册》 ST/SG/AC.10/11/Rev.6 38.3 UNITED NATIONS "Recommendations on the TRANSPORT OF DANGEROUS GOODS" Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 38.3			
样品外观 Appearance	黑色塑胶外壳 Black Plastics cement shell			
样品接受日期 Accepted Date	2017-06-08	检测起迄日期 Test Date	2017-06-12 ~ 2017-07-06	
检测项目 Test Items	高度模拟;热测试;振动;冲击;外短路;撞击;过充电;强制放电 Altitude simulation,Thermal test,Vibration,Shock,External short circuit,Impact,Overcharge,Forced discharge			
检测结论 Conclusion	经检验,该样品符合联合国《关于危险货物运输的建议书 试验和标准手册》 ST/SG/AC.10/11/Rev.6 38.3标准要求。 The sample has passed the test items of UNITED NATIONS "Recommendations on the TRANSPORT OF DANGEROUS GOODS" Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 38.3 生效日期(Date): 2017-07-06			
备注 Comment	可充电锂电池组Rechargeable Lithium Battery./			
委托单位地址 Consignor Address	/		邮政编码 Post Code	211106

批准
Approver: 
职务
Title: 副总工程师(Vice chief engineer)

审核
Checker: 

编制
Compiler: 



上海化工研究院检测中心
检测报告

SRICI Testing Centre Test Report

NO. 1117060063

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序号 No.	检测项目名称 Name of Test Items	标准要求或标准条款号 Standard requirement or The Clause Number of Standard	检测结果 Test Result	本项结论 Conclusion	备注 Remark	
1	高度模拟 Altitude simulation	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/Rev.6 38.3 试验T.1 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Section 38.3 Test T.1	见附表 1 See Appendix 1	合格 Passed	/	
2	热测试 Thermal test	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/Rev.6 38.3 试验T.2 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Section 38.3 Test T.2	见附表 2 See Appendix 2	合格 Passed	/	
3	振动 Vibration	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/Rev.6 38.3 试验T.3 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Section 38.3 Test T.3	见附表 3 See Appendix 3	合格 Passed	/	
4	冲击 Shock	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/Rev.6 38.3 试验T.4 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Section 38.3 Test T.4	见附表 4 See Appendix 4	合格 Passed	/	
5	外短路 External short circuit	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/Rev.6 38.3 试验T.5 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Section 38.3 Test T.5	见附表 5 See Appendix 5	合格 Passed	/	
6	撞击 Impact	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/Rev.6 38.3 试验T.6 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Section 38.3 Test T.6	见附表 6 See Appendix 6	合格 Passed	/	
7	过充电 Overcharge	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/Rev.6 38.3 试验T.7 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Section 38.3 Test T.7	见附表 7 See Appendix 7	合格 Passed	/	
8	强制放电 Forced discharge	联合国《关于危险货物运输的建议书 试验和标准手册》ST/SG/AC.10/11/Rev.6 38.3 试验T.8 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Section 38.3 Test T.8	见附表 8 See Appendix 8	合格 Passed	/	
检测环境条件 Test Environment Condition		环境温度:20℃-22℃;环境湿度:/% Ambient temperature:20℃-22℃;Ambient humidity:/%				
分包检验情况 Subcontracted Test Condition		检测项目 Test Item	/			
		分包实验室 Subcontracted Laboratory	名称 Name	/	邮编 Post Code	/
			地址 Address	/	电话 Tel	/

上海化工研究院检测中心
检测报告-附表1

SRICI Testing Centre Test Report - Appendix 1 NO. 1117060063

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序号 No.	1	检测项目名称 Name of Test Items		高度模拟 Altitude simulation				
样品 编号 Sample No.	样品状态 Sample Status	试验前 Before		试验后 After		质量损失 Mass Loss	剩余电压 Residual OCV	其他 现象 Other Event
		质量 Mass /g	开路电压 OCV /V	质量 Mass /g	开路电压 OCV /V	/%	/%	
001	1CYC完全充电 1CYC Fully charged	745.39	20.69	745.35	20.66	0.01	99.86	O
002	1CYC完全充电 1CYC Fully charged	744.54	20.66	744.48	20.63	0.01	99.85	O
003	1CYC完全充电 1CYC Fully charged	744.17	20.63	744.17	20.61	0.00	99.90	O
004	1CYC完全充电 1CYC Fully charged	746.68	20.67	746.66	20.64	0.00	99.85	O
005	50CYC完全充电 50CYC Fully charged	746.11	20.64	746.15	20.62	0.00	99.90	O
006	50CYC完全充电 50CYC Fully charged	742.39	20.67	742.44	20.56	0.00	99.47	O
007	50CYC完全充电 50CYC Fully charged	742.21	20.53	742.32	20.52	0.00	99.95	O
008	50CYC完全充电 50CYC Fully charged	746.13	20.69	746.10	20.66	0.00	99.86	O
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备注: L-泄漏 V-漏气 D-解体 R-破裂 F-起火 O-无泄漏、无漏气、无解体、无破裂、无起火。 Note: L-Leakage V-Venting D-Disassembly R-Rupture F-Fire O-No Leakage, No Venting, No Disassembly, No Rupture & No Fire.								

(一)

上海化工研究院检测中心 检测报告 - 附表 2

SRICI Testing Centre Test Report - Appendix 2 NO. 1117060063

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序号 No.	2	检测项目名称 Name of Test Items		热测试 Thermal test				
样品 编号 Sample No.	样品状态 Sample Status	试验前 Before		试验后 After		质量损失 Mass Loss /%	剩余电压 Residual OCV /%	其他 现象 Other Event
		质量 Mass /g	开路电压 OCV /V	质量 Mass /g	开路电压 OCV /V			
001	1CYC完全充电 1CYC Fully charged	745.35	20.66	744.63	20.46	0.10	99.03	O
002	1CYC完全充电 1CYC Fully charged	744.48	20.63	743.82	20.45	0.09	99.13	O
003	1CYC完全充电 1CYC Fully charged	744.17	20.61	743.52	20.45	0.09	99.22	O
004	1CYC完全充电 1CYC Fully charged	746.66	20.64	746.04	20.47	0.08	99.18	O
005	50CYC完全充电 50CYC Fully charged	746.15	20.62	745.52	20.46	0.08	99.22	O
006	50CYC完全充电 50CYC Fully charged	742.44	20.56	741.73	20.47	0.10	99.56	O
007	50CYC完全充电 50CYC Fully charged	742.32	20.52	741.62	20.40	0.09	99.42	O
008	50CYC完全充电 50CYC Fully charged	746.10	20.66	745.44	20.48	0.09	99.13	O
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备注: L-泄漏 V-漏气 D-解体 R-破裂 F-起火 O-无泄漏、无漏气、无解体、无破裂、无起火。
 Note: L-Leakage V-Venting D-Disassembly R-Rupture F-Fire O-No Leakage, No Venting, No Disassembly, No Rupture & No Fire.

上海化工研究院检测中心
检测报告-附表3

SRICI Testing Centre Test Report—Appendix 3

NO. 1117060063

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序号 No.	3	检测项目名称 Name of Test Items	振动 Vibration					
样品 编号 Sample No.	样品状态 Sample Status	试验前 Before		试验后 After		质量损失 Mass Loss /%	剩余电压 Residual OCV /%	其他 现象 Other Event
		质量 Mass /g	开路电压 OCV /V	质量 Mass /g	开路电压 OCV /V			
001	1CYC完全充电 1CYC Fully charged	744.63	20.46	744.78	20.45	0.00	99.95	O
002	1CYC完全充电 1CYC Fully charged	743.82	20.45	743.98	20.43	0.00	99.90	O
003	1CYC完全充电 1CYC Fully charged	743.52	20.45	743.74	20.44	0.00	99.95	O
004	1CYC完全充电 1CYC Fully charged	746.04	20.47	746.29	20.46	0.00	99.95	O
005	50CYC完全充电 50CYC Fully charged	745.52	20.46	745.78	20.44	0.00	99.90	O
006	50CYC完全充电 50CYC Fully charged	741.73	20.47	741.98	20.45	0.00	99.90	O
007	50CYC完全充电 50CYC Fully charged	741.62	20.40	741.77	20.39	0.00	99.95	O
008	50CYC完全充电 50CYC Fully charged	745.44	20.48	745.69	20.46	0.00	99.90	O
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备注: L-泄漏 V-漏气 D-解体 R-破裂 F-起火 O-无泄漏、无漏气、无解体、无破裂、无起火。 Note: L-Leakage V-Venting D-Disassembly R-Rupture F-Fire O-No Leakage, No Venting, No Disassembly, No Rupture & No Fire.								

上海化工研究院检测中心
检测报告-附表 4

SRICI Testing Centre Test Report—Appendix 4 NO. 1117060063

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序号 No.	4	检测项目名称 Name of Test Items		冲击 Shock				
样品 编号 Sample No.	样品状态 Sample Status	试验前 Before		试验后 After		质量损失 Mass Loss /%	剩余电压 Residual OCV /%	其他 现象 Other Event
		质量 Mass /g	开路电压 OCV /V	质量 Mass /g	开路电压 OCV /V			
001	1CYC完全充电 1CYC Fully charged	744.78	20.45	744.75	20.44	0.00	99.95	0
002	1CYC完全充电 1CYC Fully charged	743.98	20.43	743.94	20.42	0.01	99.95	0
003	1CYC完全充电 1CYC Fully charged	743.74	20.44	743.74	20.43	0.00	99.95	0
004	1CYC完全充电 1CYC Fully charged	746.29	20.46	746.25	20.44	0.01	99.90	0
005	50CYC完全充电 50CYC Fully charged	745.78	20.44	745.78	20.43	0.00	99.95	0
006	50CYC完全充电 50CYC Fully charged	741.98	20.45	741.99	20.45	0.00	100.00	0
007	50CYC完全充电 50CYC Fully charged	741.77	20.39	741.71	20.39	0.01	100.00	0
008	50CYC完全充电 50CYC Fully charged	745.69	20.46	745.63	20.44	0.01	99.90	0
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备注: L-泄漏 V-漏气 D-解体 R-破裂 F-起火 0-无泄漏、无漏气、无解体、无破裂、无起火。 Note: L-Leakage V-Venting D-Disassembly R-Rupture F-Fire O-No Leakage,No Venting, No Disassembly,No Rupture & No Fire.								

上海化工研究院检测中心
检测报告-附表5

SRICI Testing Centre Test Report—Appendix 5 NO. 1117060063

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序号 No.	5	检测项目名称 Name of Test Items	外短路 External short circuit
样品编号 Sample No.	样品状态 Sample Status	样品表面最高温度 Max. External Temperature /°C	其他现象 Other Event
001	1CYC完全充电 1CYC Fully charged	74.1	0
002	1CYC完全充电 1CYC Fully charged	70.8	0
003	1CYC完全充电 1CYC Fully charged	75.0	0
004	1CYC完全充电 1CYC Fully charged	72.1	0
005	50CYC完全充电 50CYC Fully charged	77.6	0
006	50CYC完全充电 50CYC Fully charged	70.9	0
007	50CYC完全充电 50CYC Fully charged	73.6	0
008	50CYC完全充电 50CYC Fully charged	73.1	0
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备注: D-解体 R-破裂 F-起火 0-无解体、无起火、无破裂。
Note: D-Disassembly R-Ruptur F-Fire O-No Disassembly, No Fire & No Rupture.

上海化工研究院检测中心
检测报告-附表 6

SRICI Testing Centre Test Report — Appendix 6 NO. 1117060063

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序号 No.	6	检测项目名称 Name of Test Items	撞击 Impact
样品编号 Sample No.	样品状态 Sample Status	样品表面最高温度 Max. External Temperature /°C	其他现象 Other Event
009	1CYC 50%容量 1CYC 50% Capacity	24.2	O
010	1CYC 50%容量 1CYC 50% Capacity	24.0	O
011	1CYC 50%容量 1CYC 50% Capacity	24.2	O
012	1CYC 50%容量 1CYC 50% Capacity	24.4	O
013	1CYC 50%容量 1CYC 50% Capacity	24.4	O
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备注: D-解体 F-起火 O-无解体、无起火。 Note: D-Disassembly F-Fire O-No Disassembly & No Fire.			

上海化工研究院检测中心
检测报告-附表 7

SRICI Testing Centre Test Report - Appendix 7 NO. 1117060063

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序号 No.	7	检测项目名称 Name of Test Items	过充电 Overcharge
样品编号 Sample No.	样品状态 Sample Status		其他现象 Other Event
014	1CYC完全充电 1CYC Fully charged		0
015	1CYC完全充电 1CYC Fully charged		0
016	1CYC完全充电 1CYC Fully charged		0
017	1CYC完全充电 1CYC Fully charged		0
018	50CYC完全充电 50CYC Fully charged		0
019	50CYC完全充电 50CYC Fully charged		0
020	50CYC完全充电 50CYC Fully charged		0
021	50CYC完全充电 50CYC Fully charged		0
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备注: D-解体 F-起火 0-无解体、无起火。 Note: D-Disassembly F-Fire O-No Disassembly & No Fire.			

上海化工研究院检测中心
检测报告-附表8

SRICI Testing Centre Test Report—Appendix 8 NO. 1117060063

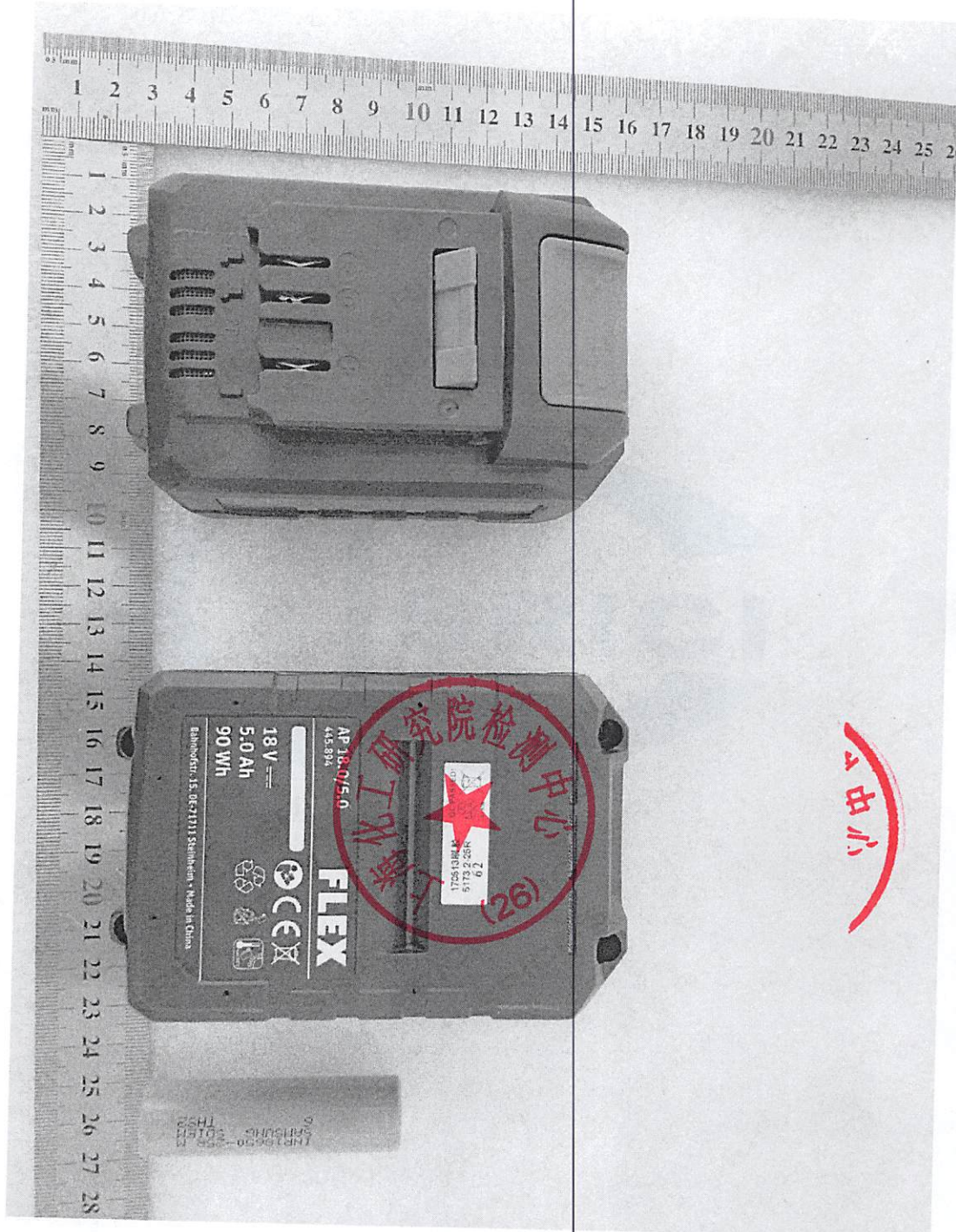
10/11

序号 No.	8	检测项目名称 Name of Test Items	强制放电 Forced discharge
样品编号 Sample No.	样品状态 Sample Status		其他现象 Other Event
022	1CYC完全放电 1CYC Fully discharged		O
023	1CYC完全放电 1CYC Fully discharged		O
024	1CYC完全放电 1CYC Fully discharged		O
025	1CYC完全放电 1CYC Fully discharged		O
026	1CYC完全放电 1CYC Fully discharged		O
027	1CYC完全放电 1CYC Fully discharged		O
028	1CYC完全放电 1CYC Fully discharged		O
029	1CYC完全放电 1CYC Fully discharged		O
030	1CYC完全放电 1CYC Fully discharged		O
031	1CYC完全放电 1CYC Fully discharged		O
032	50CYC完全放电 50CYC Fully discharged		O
033	50CYC完全放电 50CYC Fully discharged		O
034	50CYC完全放电 50CYC Fully discharged		O
035	50CYC完全放电 50CYC Fully discharged		O
036	50CYC完全放电 50CYC Fully discharged		O
037	50CYC完全放电 50CYC Fully discharged		O
038	50CYC完全放电 50CYC Fully discharged		O
039	50CYC完全放电 50CYC Fully discharged		O
040	50CYC完全放电 50CYC Fully discharged		O
041	50CYC完全放电 50CYC Fully discharged		O
备注: D-解体 F-起火 O-无解体、无起火。 Note: D-Disassembly F-Fire O-No Disassembly & No Fire.			

上海化工研究院检测中心
检测报告-附图
SRICI Testing Centre Test Report—Appendix

NO. 1117060063

11/11



报告结束