

SAFETY DATA SHEET

Regulation (EC) No 1907/2006 (REACH), Annex II
(COMMISSION REGULATION (EU) No 453/2010)

Version 1
Product Name SC series nickel cadmium battery

Issue Date 28-Sep-2014
Revision date 28-Sep-2014

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

1.1. Product identifier

Product Name SC series nickel cadmium battery
REACH registration number No information available

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

Recommended Use Toy emergency lamps and lanterns of electric tools, etc
Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Supplier Taizhou Jiunoujie Electronic Technology Co. , Ltd
Address No. 166 Shuangdeng Street Jiangyan District TAIZHOU
Postal Code 225500
Phone +86-523-88125777
FAX +86-523-88122388
E-mail Xuhui8829@163.com

1.4. Emergency telephone number

+86-523-88125777

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Not classified

Classification according to Directive 67/548/EEC or 1999/45/EC
Not classified

2.2. Label elements

Symbols/Pictograms None
Signal word None
Hazard Statements Not applicable
Precautionary Statements Not applicable

2.3. Other hazards

Broken leak will cause serious harm

SECTION 3: Composition/information on ingredients

3.1. Article

Chemical Name	EC No	CAS No	Weight-%	Classification according to Directive 67/548/EEC or 1999/45/EC	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Iron	231-096-4	7439-89-6	36.11-45.31	Not classified	Not classified

Cadmium and compounds (as Cd)	231-152-8	7440-43-9	18.6-25.3	T+; R26 Carc.Cat.2; R45 T; R48/23/25 N; R50-53 Repr.Cat.3; R62-63 Muta.Cat.3; R68 PBT	Acute Tox. 2 (H330) Muta. 2 (H341) Carc. 1B (H350) Repr. 2 (H361fd) STOT RE 1 (H372) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Nickel	231-111-4	7440-02-0	15.7-19.2	Carc. Cat. 3; R40 T; R48/23 R43	Skin Sens. 1 (H317) Carc. 2 (H351) STOT RE 1 (H372)
Water	231-791-2	7732-18-5	7.79-8.27	Not classified	Not classified
Potassium	231-119-8	7440-09-7	3.6-4.2	R14 F; R15 C; R34	Skin Corr. 1B (H314) (EUH014) Water-react. 1 (H260)
Poly[imino(1-oxo-1,12-dodecanediyl)], (nylon 12 chips)	-	24937-16-4	2.62-3.12	Not classified	Not classified
Cobalt	231-158-0	7440-48-4	0.32-0.42	R42/43 R53	Resp. Sens. 1 (H334) Skin Sens. 1 (H317) Aquatic Chronic 4 (H413)
Lithium	231-102-5	7439-93-2	0.24-0.28	R14 F; R15 C; R34	Skin Corr. 1B (H314) (EUH014) Water-react. 1 (H260)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice

No hazards which require special first aid measures.

Inhalation

Not an expected route of exposure.

Skin Contact

No special technical protective measures are necessary.

Eye contact

Not an expected route of exposure.

Ingestion

Not an expected route of exposure. If swallowed, call a poison control center or physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

No information available

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

No information available

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating and toxic gases and vapors
 Keep product and empty container away from heat and sources of ignition
 In the event of fire and/or explosion do not breathe fumes

5.3. Advice for firefighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation, especially in confined areas
 ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area)

6.2. Environmental precautions

Should not be released into the environment

6.3. Methods and material for containment and cleaning up

Pick up and transfer to properly labeled containers

6.4. Reference to other sections

See Section 7 for more information
 See section 8 for more information
 See section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice
 Ensure adequate ventilation, especially in confined areas
 Keep away from heat, sparks, flame and other sources of ignition
 Do not eat, drink or smoke when using this product

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place
 Keep away from heat
 Keep locked up and out of reach of children
 Keep away from food, drink and animal feeding stuffs
 Store in accordance with local regulations

7.3. Specific end use(s)

Apart from the uses mentioned in SECTION 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Chemical Name	Australia	Austria	Belgium	Denmark	European Union
Cadmium and compounds (as Cd) (CAS #: 7440-43-9)	0.01 mg/m ³	-	-	TWA: 0.005 mg/m ³	-
Nickel (CAS #: 7440-02-0)	1 mg/m ³	-	-	TWA: 0.05 mg/m ³	-
Cobalt (CAS #: 7440-48-4)	0.05 mg/m ³	Skin	-	TWA: 0.01 mg/m ³	-

Chemical Name	Latvia	France	Finland	Germany	Italy
Cadmium and compounds (as Cd) (CAS #: 7440-43-9)	TWA: 0.01 mg/m ³ STEL: 0.05 mg/m ³	TWA: 0.05 mg/m ³	TWA: 0.02 mg/m ³ Skin	Skin	-
Nickel (CAS #: 7440-02-0)	TWA: 0.05 mg/m ³	TWA: 1 mg/m ³	TWA: 1 mg/m ³ TWA: 0.1 mg/m ³	Skin	-
Cobalt (CAS #: 7440-48-4)	TWA: 0.5 mg/m ³	-	TWA: 0.02 mg/m ³	Skin	-

Chemical Name	Poland	Portugal	Spain	Switzerland	Netherlands
Cadmium and compounds (as Cd) (CAS #: 7440-43-9)	TWA: 0.01 mg/m ³ TWA: 0.002 mg/m ³	TWA: 0.01 mg/m ³ TWA: 0.002 mg/m ³	TWA: 0.01 mg/m ³ TWA: 0.002 mg/m ³	Skin TWA: 0.015 mg/m ³	-
Nickel (CAS #: 7440-02-0)	TWA: 0.25 mg/m ³	TWA: 1.5 mg/m ³	TWA: 1 mg/m ³	TWA: 0.5 mg/m ³	-
Cobalt (CAS #: 7440-48-4)	STEL: 0.2 mg/m ³ TWA: 0.02 mg/m ³	TWA: 0.02 mg/m ³	TWA: 0.02 mg/m ³	Skin TWA: 0.05 mg/m ³	TWA: 0.02 mg/m ³

Chemical Name	Norway	United Kingdom	ACGIH TLV	OSHA PEL	NIOSH IDLH
Cadmium and compounds (as Cd) (CAS #: 7440-43-9)	TWA: 0.05 mg/m ³ STEL: 0.15 mg/m ³	STEL: 0.075 mg/m ³ TWA: 0.025 mg/m ³	TWA: 0.01 mg/m ³ TWA: 0.002 mg/m ³ respirable fraction TWA: 0.01 mg/m ³ Cd TWA: 0.002 mg/m ³ Cd respirable fraction	TWA: 0.1 mg/m ³ fume applies to any operations or sectors for which the Cadmium standard is stayed or otherwise not in effect TWA: 0.2 mg/m ³ dust applies to any operations or sectors for which the Cadmium standard is stayed or otherwise not in effect TWA: 5 µg/m ³ (vacated) STEL: 0.3 ppm fume Ceiling: 0.3 mg/m ³ fume applies to any operations or sectors for which the Cadmium standard is stayed or otherwise not in effect Ceiling: 0.6 mg/m ³ dust applies to any operations or sectors for which the Cadmium standard is stayed or otherwise not in effect	IDLH: 9 mg/m ³ dust IDLH: 9 mg/m ³ Cd dust and fume
Nickel (CAS #: 7440-02-0)	TWA: 0.05 mg/m ³ STEL: 0.15 mg/m ³	STEL: 1.5 mg/m ³ TWA: 0.5 mg/m ³	TWA: 1.5 mg/m ³ inhalable fraction	TWA: 1 mg/m ³ (vacated) TWA: 1 mg/m ³	IDLH: 10 mg/m ³ IDLH: 10 mg/m ³ Ni TWA: 0.015 mg/m ³ TWA: 0.015 mg/m ³ except Nickel carbonyl Ni
Cobalt (CAS #: 7440-48-4)	TWA: 0.02 mg/m ³ STEL: 0.06 mg/m ³	STEL: 0.3 mg/m ³ TWA: 0.1 mg/m ³	TWA: 0.02 mg/m ³ TWA: 0.02 mg/m ³ Co	TWA: 0.1 mg/m ³ dust and fume (vacated) TWA: 0.05 mg/m ³ dust and fume	IDLH: 20 mg/m ³ dust and fume TWA: 0.05 mg/m ³ dust and fume

Derived No Effect Level (DNEL)

No information available.

Predicted No Effect Concentration (PNEC)

No information available.

8.2. Exposure controls**Engineering Controls**

Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition.

Personal protective equipment

Eye/face protection	No special technical protective measures are necessary
Hand Protection	No special technical protective measures are necessary
Skin and body protection	No special technical protective measures are necessary
Respiratory protection	No special technical protective measures are necessary

Environmental exposure controls

Do not allow into any sewer, on the ground or into any body of water

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Appearance	Solid
Color	Silver surface
Odor	Odorless
Odor Threshold	Not determined
pH	Alkalinity
Melting point/freezing point	Not determined
Boiling point / boiling range	Not determined
Flash point	Not determined
Evaporation rate	Not determined
Flammability (solid, gas)	Not flammable
Flammability Limit in Air	Not determined
Vapor Pressure	Not determined
Vapor density	Not determined
Density	Not determined
Relative density	Not determined
Bulk density	Not determined
Specific gravity	Not determined
Water solubility	Insoluble in water
Partition coefficient (LogPow)	Not determined
Autoignition temperature	Not determined
Decomposition temperature	Not determined
Kinematic viscosity	Not determined
Dynamic viscosity	Not determined
Explosive properties	Not an explosive
Oxidizing properties	Non oxidising

9.2. Other information

No information available

SECTION 10: Stability and reactivity**10.1. Reactivity**

No information available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal processing.

10.4. Conditions to avoid

Heat, flames and sparks. Mechanical damage

10.5. Incompatible materials

Strong oxidizing agents. Strong acids. Strong bases.

10.6. Hazardous decomposition products

None under normal use conditions

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
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Iron (CAS #: 7439-89-6)	98.6 g/kg bw (rat)	-	-
Cadmium and compounds (as Cd) (CAS #: 7440-43-9)	= 2330 mg/kg (Rat)	-	= 25 mg/m ³ (Rat) 30 min
Nickel (CAS #: 7440-02-0)	> 9000 mg/kg (Rat)	-	-
Cobalt (CAS #: 7440-48-4)	= 6170 mg/kg (Rat)	-	> 10 mg/L (Rat) 1 h

Skin corrosion/irritation

Non-irritating to the skin.

Serious eye damage/eye irritation

No eye irritation.

Sensitization

No sensitization responses were observed.

Germ cell mutagenicity

No information available.

Carcinogenicity

Chemical Name	European Union	IARC
Cadmium and compounds (as Cd) (CAS #: 7440-43-9)	Carc. 1B	Group 1
Nickel (CAS #: 7440-02-0)	Carc. 2	Group 2B
Cobalt (CAS #: 7440-48-4)	-	Group 2A Group 2B

Reproductive toxicity

No information available.

STOT - single exposure

No information available.

STOT - repeated exposure

No information available.

Aspiration hazard

No information available.

SECTION 12: Ecological information**12.1. Toxicity**

Chemical Name	Algae/aquatic plants EC50	Fish LC50	Crustacea EC50
Iron (CAS #: 7439-89-6)	-	-	> 100 mg/L/48h (Daphnia magna)
Cadmium and compounds (as Cd) (CAS #: 7440-43-9)	-	0.003: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.006: 96 h Oncorhynchus mykiss mg/L LC50 static 0.002: 96 h Cyprinus carpio mg/L LC50 4.26: 96 h Cyprinus carpio mg/L LC50 semi-static 0.24: 96 h Cyprinus carpio mg/L LC50 static 21.1: 96 h Lepomis macrochirus mg/L LC50 flow-through 0.016: 96 h Oryzias latipes mg/L LC50 0.0004 - 0.003: 96 h Pimephales promelas mg/L	0.0244: 48 h Daphnia magna mg/L EC50 Static

		LC50	
Nickel (CAS #: 7440-02-0)	0.18 mg/L/72h Pseudokirchneriella subcapitata 0.174 - 0.311 mg/L/96h Pseudokirchneriella subcapitata static	100 mg/L/96h Brachydanio rerio 1.3 mg/L/96h Cyprinus carpio semi-static 10.4 mg/L/96h Cyprinus carpio static	100 mg/L/48h Daphnia magna 1 mg/L/48h Daphnia magna Static
Cobalt (CAS #: 7440-48-4)	-	100: 96 h Brachydanio rerio mg/L LC50 static	-

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

No information available

12.5. Results of PBT and vPvB assessment

PBT/vPvB assessment information is not available as chemical safety assessment not conducted.

12.6. Other adverse effects

No information available

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Waste from residues/unused products	Disposal should be in accordance with applicable regional, national and local laws and regulations
Contaminated packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations

SECTION 14: Transport information

14.1 UN Number	2795
14.2 Proper shipping name	BATTERIES, WET, FILLED WITH ALKALI, electric storage
14.3 Hazard Class	8
14.4 Packing Group	None
14.5 Environmental hazards	Non-marine pollutant
14.6 Special precautions	No information available
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable

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

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Take note of Directive 94/33/EC on the protection of young people at work

Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work

International Inventories

Component	TSCA	DSL/NDSL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
Iron 7439-89-6 (36.11-45.31)	X	X	X	-	X	X	X	X
Cadmium and compounds (as Cd) 7440-43-9 (18.6-25.3)	X	X	X	-	X	X	X	X
Nickel 7440-02-0 (15.7-19.2)	X	X	X	-	X	X	X	X
Water 7732-18-5 (7.79-8.27)	X	X	X	-	X	X	X	X
Potassium 7440-09-7 (3.6-4.2)	X	X	X	-	X	X	X	X
Poly[imino(1-oxo- 1,12-dodecanediyl)], (nylon 12 chips) 24937-16-4 (2.62-3.12)	X	-	-	X	X	X	X	X
Cobalt 7440-48-4 (0.32-0.42)	X	X	X	-	X	X	X	X
Lithium 7439-93-2 (0.24-0.28)	X	X	X	-	X	X	X	X

"-" Not Listed

"X" Listed

15.2. Chemical safety assessment

No information available

SECTION 16: Other information

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

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Revision Note Not applicable

Key or legend to abbreviations and acronyms used in the safety data sheet

TWA - TWA (time-weighted average)

STEL - STEL (Short Term Exposure Limit)

Ceiling - Maximum limit value

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

Full text of H-Statements referred to under section 3

H330 - Fatal if inhaled.
H341 - Suspected of causing genetic defects
H350 - May cause cancer
H361 - Suspected of damaging fertility or the unborn child
H372 - Causes damage to organs through prolonged or repeated exposure in contact with skin
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H317 - May cause an allergic skin reaction
H351 - Suspected of causing cancer
H314 - Causes severe skin burns and eye damage
EUH014 - Reacts violently with water
H260 - In contact with water releases flammable gases which may ignite spontaneously
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H413 - May cause long lasting harmful effects to aquatic life

Full text of R-phrases referred to under sections 2 and 3

R26 - Very toxic by inhalation
R45 - May cause cancer
R48/23/25 - Toxic: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R62 - Possible risk of impaired fertility
R63 - Possible risk of harm to the unborn child
R68 - Possible risk of irreversible effects
R40 - Limited evidence of a carcinogenic effect
R43 - May cause sensitization by skin contact
R14 - Reacts violently with water
R15 - Contact with water liberates extremely flammable gases
R34 - Causes burns
R42/43 - May cause sensitization by inhalation and skin contact.

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

----- End of Safety Data Sheet -----