

### Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 17-5-2023 Version: 1.0

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

#### 1.1. Product identifier

Product form	: Article
Product name	: Turntable Li-ion battery
Product code	: TURN210BK
Type of product	: SP-188 Lithium cells and batteries are not subject to provision of ADR because lithium metal is less than 2 gram.

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

#### 1.2.1. Relevant identified uses

Intended for general public Use of the substance/mixture

: Electrical batteries and accumulators

#### 1.2.2. Uses advised against

Restrictions on use

: Do not open batteries

#### 1.3. Details of the supplier of the safety data sheet

Nedis B.V. De Tweeling 28 5215MC 's Hertogenbosch – The Netherlands T +31 735991055 www.nedis.com

#### **1.4. Emergency telephone number**

No additional information available

### **SECTION 2: Hazards identification**

2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

#### Adverse physicochemical, human health and environmental effects

No additional information available

#### 2.2. Label elements

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

Contains

: Cobalt lithium dioxide; Phosphate(1),hexafluoro-,Lithium; Ethylene Carbonate

### 2.3. Other hazards

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

## **SECTION 3: Composition/information on ingredients**

#### 3.1. Substances

Not applicable

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3.2. Mixtures			
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Cobalt lithium dioxide	CAS-No.: 12190-79-3 EC-No.: 235-362-0	35 – 38	Repr. 1A, H360
Graphite	CAS-No.: 7782-42-5	20 – 22	Not classified
Ethylene Carbonate	CAS-No.: 96-49-1 EC-No.: 202-510-0	14 – 16	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 STOT RE 2, H373
copper	CAS-No.: 7440-50-8	9 – 10	Aquatic Chronic 2, H411
aluminium	CAS-No.: 7429-90-5 EC-No.: 231-072-3 EC Index-No.: 013-002-00-1	5 – 6	Water-react. 2, H261 Flam. Sol. 1, H228
Phosphate(1),hexafluoro-,Lithium	CAS-No.: 21324-40-3	5 – 6	Acute Tox. 3 (Oral), H301 Skin Corr. 1, H314 STOT RE 1, H372
polypropylene	CAS-No.: 9003-07-0	5 – 6	Not classified
ethyl methyl carbonate	CAS-No.: 623-53-0 EC-No.: 433-480-9	4 – 5	Flam. Liq. 2, H225

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures		
4.1. Description of first aid measures		
First-aid measures after inhalation First-aid measures after skin contact First-aid measures after eye contact First-aid measures after ingestion	<ul> <li>Remove person to fresh air and keep comfortable for breathing.</li> <li>Rinse skin with water/shower.</li> <li>Rinse cautiously with water for several minutes.</li> <li>Call a poison center or a doctor if you feel unwell.</li> </ul>	
4.2. Most important symptoms and ef	fects, both acute and delayed	
No additional information available		
4.3. Indication of any immediate medi	cal attention and special treatment needed	
The standard standing like		

Treat symptomatically.

SECTION 5: Firefighting measures	
5.1. Extinguishing media	
Suitable extinguishing media	: Dry powder. Foam.
5.2. Special hazards arising from the subst	tance or mixture
Fire hazard Hazardous decomposition products in case of fire	: Flammable solid. : Toxic fumes may be released.
5.3. Advice for firefighters	
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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SECTION 6: Accidental release meas	ures
6.1. Personal precautions, protective equ	ipment and emergency procedures
6.1.1. For non-emergency personnel	
Emergency procedures	: Ventilate spillage area. No open flames, no sparks, and no smoking. Only qualified personnel equipped with suitable protective equipment may intervene.
6.1.2. For emergency responders	
Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
6.2. Environmental precautions	
Avoid release to the environment.	
6.3. Methods and material for containment	nt and cleaning up
Methods for cleaning up Other information	<ul><li>Mechanically recover the product.</li><li>Dispose of materials or solid residues at an authorized site.</li></ul>
6.4. Reference to other sections	
For further information refer to section 13.	

SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Precautions for safe handling	: Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
7.2. Conditions for safe storage, including	ng any incompatibilities
Storage conditions Storage temperature	<ul> <li>Store in a well-ventilated place. Keep cool. Keep cool.</li> <li>&lt; 70 °C</li> </ul>
7.3. Specific end use(s)	

No additional information available

### SECTION 8: Exposure controls/personal protection

8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

copper (7440-50-8)			
EU - Indicative Occupational Exposure Limit (IOEL)			
Local name	Copper		
Remark	(Year of adoption 2014)		
Regulatory reference SCOEL Recommendations			
Netherlands - Occupational Exposure Limits			
Local name	Koper		
TGG-8u (OEL TWA)	0,1 mg/m³ en anorganische koperverbindingen (inhaleerbaar)		
Regulatory reference	Arbeidsomstandighedenregeling 2022		

8.1.2. Recommended monitoring procedures

No additional information available

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#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

No additional information available

#### 8.1.5. Control banding

No additional information available

#### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

#### 8.2.2. Personal protection equipment

#### 8.2.2.1. Eye and face protection

No additional information available

#### 8.2.2.2. Skin protection

No additional information available

#### 8.2.2.3. Respiratory protection

Respiratory protection: [In case of inadequate ventilation] wear respiratory protection.

#### 8.2.2.4. Thermal hazards

No additional information available

#### 8.2.3. Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment.

### **SECTION 9: Physical and chemical properties**

#### 9.1. Information on basic physical and chemical properties

Physical state	: Solid	
Colour	: Not available	
Odour	: Not available	
Odour threshold	: Not available	
	: Not available	
Melting point		
Freezing point	: Not applicable	
Boiling point	Not available	
Flammability	: Flammable solid, In contact with water releases flammable gases.	
Explosive limits	: Not applicable	
Lower explosion limit	: Not applicable	
Upper explosion limit	: Not applicable	
Flash point	: Not applicable	
Auto-ignition temperature	: Not applicable	
Decomposition temperature	: Not available	
pH	: Not available	
pH solution	: Not available	
Viscosity, kinematic	: Not applicable	
Solubility	: Not available	
Partition coefficient n-octanol/water (Log Kow)	: Not available	
Vapour pressure	: Not available	
Vapour pressure at 50°C	: Not available	
Density	: Not available	
Relative density	: Not available	
Relative vapour density at 20°C	: Not applicable	
Particle size	: Not available	

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#### 9.2. Other information

- 9.2.1. Information with regard to physical hazard classes
- No additional information available

#### 9.2.2. Other safety characteristics

No additional information available

## SECTION 10: Stability and reactivity

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport. Flammable solid.

**10.2. Chemical stability** 

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. In contact with water releases flammable gases.

**10.4. Conditions to avoid** 

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition. Water, humidity.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information	
11.1. Information on hazard classes as define	ed in Regulation (EC) No 1272/2008
Acute toxicity (oral) Acute toxicity (dermal) Acute toxicity (inhalation)	Not classified Not classified Not classified
Cobalt lithium dioxide (12190-79-3)	
LD50 oral rat	<ul> <li>&gt; 5000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline</li> <li>425 (Acute Oral Toxicity: Up-and-Down Procedure)</li> </ul>
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
Ethylene Carbonate (96-49-1)	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Guideline: other:, Remarks on results: other:
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal)), Remarks on results: other:
Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Not classified
Respiratory or skin sensitisation	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified

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Phosphate(1),hexafluoro-,Lithium (21324-40-	3)		
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.		
Ethylene Carbonate (96-49-1)			
LOAEL (oral, rat, 90 days)	554 mg/kg bodyweight Animal: rat, Animal sex: female, Remarks on results: other:		
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.		
Aspiration hazard :	Not classified		
Turntable Li-ion battery			
Viscosity, kinematic	Not applicable		
11.2. Information on other hazards	·		

No additional information available

SECTION 12: Ecological information	
12.1. Toxicity	
Ecology - general Hazardous to the aquatic environment, short–term (acute) Hazardous to the aquatic environment, long–term (chronic) Not rapidly degradable	: Harmful to aquatic life with long lasting effects. : Not classified : Not classified
Ethylene Carbonate (96-49-1)	
LC50 - Fish [1]	> 100 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
12.2. Persistence and degradability	
No additional information available	
12.3. Bioaccumulative potential	
No additional information available	
12.4. Mobility in soil	
No additional information available	
12.5. Results of PBT and vPvB assessment	

No additional information available

**12.6. Endocrine disrupting properties** 

No additional information available

12.7. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods

: Dispose of contents/container in accordance with licensed collector's sorting instructions.

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ADR	IMDG	ΙΑΤΑ	ADN	RID
14.1. UN number or ID n	umber		1	
UN 3481	UN 3481	UN 3481	UN 3481	UN 3481
14.2. UN proper shippin	g name			
LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT	LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT	Lithium ion batteries contained in equipment	LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT	LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT
Fransport document descr	iption		1	
UN 3481 LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT, 9A, (E)	UN 3481 LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT, 9	UN 3481 Lithium ion batteries contained in equipment, 9A	UN 3481 LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT, 9A	UN 3481 LITHIUM ION BATTERIES CONTAINEE IN EQUIPMENT, 9A
14.3. Transport hazard o	class(es)			
9A	9	9A	9A	9A
14.4. Packing group			1	
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental haz	ards		1	
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary informatio	n available		1	1

Classification code (ADR)	: M4
Special provisions (ADR)	: 188, 230, 310, 348, 360, 376, 377, 387, 670
Limited quantities (ADR)	: 0
Excepted quantities (ADR)	: E0
Packing instructions (ADR)	: P903, P908, P909, P910, P911, LP903, LP904, LP905, LP906
Transport category (ADR)	: 2
Tunnel restriction code (ADR)	: E
EAC code	: 4W
Transport by sea	
Special provisions (IMDG)	: 188, 230, 310, 348, 360, 376, 377, 384, 387
Limited quantities (IMDG)	: 0
Excepted quantities (IMDG)	: E0
Packing instructions (IMDG)	: P903, P908, P909, P910, P911, LP903, LP904, LP905, LP906
EmS-No. (Fire)	: <b>F-A</b>
EmS-No. (Spillage)	: S-I
Stowage category (IMDG)	: A
Stowage and handling (IMDG)	: SW19
Properties and observations (IMDG)	: Electrical batteries containing lithium ion encased in a rigid metallic body. Lithium ion batteries may also be shipped in, or packed with, equipment. Electrical lithium batteries may cause fire due to an explosive rupture of the body caused by improper construction or reaction with contaminants.

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Air	transport	
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PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Forbidden
PCA limited quantity max net quantity (IATA)	: Forbidden
PCA packing instructions (IATA)	: 967
PCA max net quantity (IATA)	: 5kg
CAO packing instructions (IATA)	: 967
CAO max net quantity (IATA)	: 35kg
Special provisions (IATA)	: A48, A88, A99, A154, A164, A181, A185, A206, A213, A220
ERG code (IATA)	: 12FZ
Inland waterway transport Classification code (ADN) Special provisions (ADN) Limited quantities (ADN) Excepted quantities (ADN) Equipment required (ADN) Number of blue cones/lights (ADN)	<ul> <li>M4</li> <li>188, 230, 310, 348, 360, 376, 377, 387, 670</li> <li>0</li> <li>E0</li> <li>PP</li> <li>0</li> </ul>
Rail transport Classification code (RID) Special provisions (RID) Limited quantities (RID) Excepted quantities (RID) Packing instructions (RID) Transport category (RID) Colis express (express parcels) (RID) Hazard identification number (RID)	<ul> <li>M4</li> <li>188, 230, 310, 348, 360, _376, 377, 387, 670</li> <li>0</li> <li>E0</li> <li>P903, 908, 909, P910, P911, LP903, LP904, LP905, LP906</li> <li>2</li> <li>CE2</li> <li>90</li> </ul>

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

### SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

#### **REACH Annex XVII (Restriction List)**

Not applicable.

#### **REACH Annex XIV (Authorisation List)**

Not applicable.

#### **REACH Candidate List (SVHC)**

Contains no substance(s) listed on the REACH Candidate List

#### PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

#### **POP Regulation (Persistent Organic Pollutants)**

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

#### Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

#### **Explosives Precursors Regulation (2019/1148)**

Contains substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors) ANNEX II REPORTABLE EXPLOSIVES PRECURSORS

List of substances on their own or in mixtures or in substances for which suspicious transactions and significant disappearances and thefts are to be reported to the relevant national contact point within 24 hours.

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Name	CAS-No.	Combined Nomenclature code (CN)	Combined Nomenclature code for mixture without constituents which would determine classification under another CN code
Aluminium, powders	7429-90-5	7603 10 00; ex 7603 20 00	

Please see https://ec.europa.eu/home-affairs/system/files/2021-11/list of competent authorities and national contact points en.pdf

#### **Drug Precursors Regulation (273/2004)**

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

#### 15.1.2. National regulations

#### France

Occupational diseases	
Code	Description
RG 25	Diseases resulting from the inhalation of mineral dust containing crystalline silica (quartz, cristobalite, tridymite), crystalline silicates (kaolin, talc), graphite or coal.
RG 66	Occupational rhinitis and asthma

#### Germany

Employment restrictions

: Observe restrictions according Act on the Protection of Working Mothers (MuSchG). Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG).

Water hazard class (WGK) : WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1). Storage class (LGK, TRGS 510) LGK 11 - Combustible solids. : Joint storage table LGK 2B LGK 3 LGK 1 LGK 2A LGK 4.1A LGK 4.1B LGK 4.2 LGK 4.3 LGK 5.1A LGK 5.1B LGK 5.1C LGK 5.2 LGK 6.1A LGK 6.1B LGK 6.1C LGK 6.1D LGK 8A \_GK 6.2 LGK 7 LGK 8B LGK 10 LGK 11 LGK 12 LGK 13 LGK 10-13 : LGK 1, LGK 5.1A, LGK 6.2, LGK 7. Joint storage not permitted for LGK 2A, LGK 3, LGK 4.1A, LGK 4.2, LGK 4.3, LGK 5.1B, LGK 5.1C, LGK 5.2, LGK 6.1A, Joint storage with restrictions permitted for LGK 6.1B. : LGK 2B, LGK 4.1B, LGK 6.1C, LGK 6.1D, LGK 8A, LGK 8B, LGK 10, LGK 11, LGK 12, Joint storage permitted for LGK 13, LGK 10-13. Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

#### **Netherlands**

ABM category	: A(3) - hazardous for aquatic organisms, may have longterm hazardous effects in aquatic environment
SZW-lijst van kankerverwekkende stoffen	: None of the components are listed
SZW-lijst van mutagene stoffen	: None of the components are listed
SZW-lijst van reprotoxische stoffen – Borstvoeding	: None of the components are listed
SZW-lijst van reprotoxische stoffen –	: None of the components are listed
Vruchtbaarheid	
SZW-lijst van reprotoxische stoffen – Ontwikkeling	: None of the components are listed
Denmark	
Danish National Regulations	: Pregnant/breastfeeding women working with the product must not be in direct contact with the product
Switzerland	

#### Switzerland

Storage class (LK)

: LK 11/13 - Solids

## 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

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SECTION 16: Other information	
Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
ΙΑΤΑ	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
РВТ	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements:	
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3

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Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Sol. 1	Flammable solids, Category 1
H225	Highly flammable liquid and vapour.
H228	Flammable solid.
H261	In contact with water releases flammable gases.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H360	May damage fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
Repr. 1A	Reproductive toxicity, Category 1A
Skin Corr. 1	Skin corrosion/irritation, Category 1
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
Water-react. 2	Substances and Mixtures which, in contact with water, emit flammable gases, Category 2

#### The classification complies with

#### : ATP 12

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.