

#### Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878 Issue date: 10-10-2022 Version: 1.0

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

#### 1.1. Product identifier

Product form : Article

Product name : Wall Switch button cell CR2430

Product code : ZBWS40WT

: SP-188 Lithium cells and batteries are not subject to provision of ADR because lithium Type of product

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

Main use category : Consumer use

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]

H302 Acute toxicity (oral), Category 4

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

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

Harmful if swallowed.

## 2.2. Label elements

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

Signal word (CLP)

Contains : manganese dioxide, lithium, 1,2-Dimethoxyethane, Lithium perchlorate

Hazard statements (CLP) H302 - Harmful if swallowed. Precautionary statements (CLP) P102 - Keep out of reach of children.

#### 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]
Iron	CAS-No.: 7439-89-6 EC-No.: 231-096-4	15 – 40	Not classified
manganese dioxide	CAS-No.: 1313-13-9 EC-No.: 215-202-6 EC Index-No.: 025-001-00-3	10 – 30	Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Oral), H302
propylene carbonate	CAS-No.: 108-32-7 EC-No.: 203-572-1 EC Index-No.: 607-194-00-1	5 – 10	Eye Irrit. 2, H319
1,2-Dimethoxyethane substance listed as REACH Candidate (1,2- dimethoxyethane; ethylene glycol dimethyl ether (EGDME))	CAS-No.: 110-71-4 EC-No.: 203-794-9 EC Index-No.: 603-031-00-3	5 – 10	Flam. Liq. 2, H225 Repr. 1B, H360FD Acute Tox. 4 (Inhalation), H332
Graphite	CAS-No.: 7782-42-5	5 – 10	Not classified
lithium	CAS-No.: 7439-93-2 EC-No.: 231-102-5 EC Index-No.: 003-001-00-4	1 – 5	Water-react. 1, H260 Skin Corr. 1B, H314
Lithium perchlorate	CAS-No.: 7791-03-9 EC-No.: 232-237-2	1 – 5	Ox. Liq. 1, H271 Acute Tox. 4 (Oral), H302 Skin Corr. 1, H314
Chromium	CAS-No.: 7440-47-3 EC-No.: 231-157-5	1 – 5	Not classified
Molybdenum	CAS-No.: 7439-98-7	1 – 5	Not classified

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 general : Call a poison center or a doctor if you feel unwell.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center or a

doctor if you feel unwell.

First-aid measures after skin contact : Wash skin with plenty of water.
First-aid measures after eye contact : Rinse eyes with water as a precaution.

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

No additional 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 : Dry powder. Foam.

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

Hazardous decomposition products in case of fire : Toxic fumes may be released.

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#### 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.

#### **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

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. Notify authorities if product enters sewers or public waters.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product.

Other information : Dispose of materials or solid residues at an authorized site.

#### 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 : Wear personal protective equipment. Ensure good ventilation of the work station. Do not

allow contact with water.

Hygiene measures : Do not eat, drink or smoke when using this product.

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

Storage conditions : Store in a closed container. Keep container tightly closed. Store locked up. Protect from

moisture. Store in a dry place. Store in a well-ventilated place. Keep cool.

Storage temperature : < 70 °C

#### 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

No additional information available

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

No additional information available

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#### 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

No additional information available

#### 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 : No data available Odour : No data available Odour threshold : No data available рΗ : No data available Relative evaporation rate (butylacetate=1) : No data available : No data available Melting point Freezing point : Not applicable : No data available Boiling point : Not applicable Flash point Auto-ignition temperature : Not applicable : No data available Decomposition temperature

Flammability (solid, gas) : In contact with water releases flammable gases which may ignite spontaneously.

Vapour pressure No data available Relative vapour density at 20 °C No data available Relative density No data available Solubility No data available Partition coefficient n-octanol/water (Log Pow) : No data available Viscosity, kinematic Not applicable Viscosity, dynamic : No data available Explosive properties : No data available Oxidising properties : No data available **Explosive limits** : Not applicable

#### 9.2. Other information

No additional information available

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#### **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

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

#### 10.2. Chemical stability

Stable under normal conditions of use.

#### 10.3. Possibility of hazardous reactions

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

#### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7). Water, humidity. Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

#### 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 toxicological effects

Acute toxicity (oral) : Harmful if swallowed.
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Acute toxicity (inhalation) :	Not classified
Wall Switch button cell CR2430	
ATE CLP (oral)	1428,571 mg/kg bodyweight
Chromium (7440-47-3)	
LC50 Inhalation - Rat	> 5,41 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
Molybdenum (7439-98-7)	
LD50 oral rat	> 2000 mg/kg Source: ECHA
LD50 dermal rabbit	> 2000 mg/kg Source: ECHA
LC50 Inhalation - Rat (Dust/Mist)	> 3,92 mg/l Source: ECHA
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
Chromium (7440-47-3)	

LOAEC (inhalation, rat,dust/mist/fume, 90 days)	≥ 0,0044 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)

Aspiration hazard : Not classified

Wall Switch button cell CR2430	
Viscosity, kinematic	Not applicable

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#### **SECTION 12: Ecological information**

#### 12.1. Toxicity

Ecology - general : Before neutralisation, the product may represent a danger to aquatic organisms.

Hazardous to the aquatic environment, short-term : Not classified

(acute)

Hazardous to the aquatic environment, long-term : Not classified

(chronic)

Not rapidly degradable

Molybdenum (7439-98-7)		
LC50 - Fish [1] 609,1 mg/l Source: EHCA		609,1 mg/l Source: EHCA
	EC50 72h - Algae [1]	289,2 mg/l Source: ECHA

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

Molybder	num (743	9-98-7)
Molybaci	14111 (1 <del>1</del> 0	3-30- <i>i</i> )

Doublition as officient is a standard for the Double	0.00 Courses CDC Access on Jon 2000
Partition coefficient n-octanol/water (Log Pow)	0,23 Source: SRC Access on Jan 2006

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

Component	
1,2-Dimethoxyethane (110-71-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

#### 12.6. 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.

## **SECTION 14: Transport information**

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID		
14.1. UN number	14.1. UN number					
UN 3091	UN 3091	UN 3091	UN 3091	UN 3091		
14.2. UN proper shipping name						
LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT	LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT	Lithium metal batteries packed with equipment	LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT	LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT		

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ADR	IMDG	IATA	ADN	RID		
Transport document description						
UN 3091 LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT, 9A, (E)	UN 3091 LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT, 9	UN 3091 Lithium metal batteries packed with equipment, 9A	UN 3091 LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT, 9A	UN 3091 LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT, 9A		
14.3. Transport hazard o	class(es)					
9A	9	9A	9A	9A		
14.4. Packing group						
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable		
14.5. Environmental hazards						
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 information available						

#### 14.6. Special precautions for user

#### **Overland transport**

Classification code (ADR) : M4

Special provisions (ADR) : 188, 230, 310, 360, 376, 377, 387, 390, 670

Limited quantities (ADR) : 0
Excepted quantities (ADR) : E0

Packing instructions (ADR) : P903, P909, P910, P911, LP903, LP904, LP905, LP906

Transport category (ADR) : 2
Tunnel restriction code (ADR) : E
EAC code : 4Y

#### Transport by sea

Special provisions (IMDG) : 188, 230, 310, 360, 376, 377, 384, 387

Limited quantities (IMDG) : 0
Excepted quantities (IMDG) : EC

Packing instructions (IMDG) : P903, P908, P909, P910, P911, LP903, LP904, LP905, LP906

EmS-No. (Fire): F-AEmS-No. (Spillage): S-IStowage category (IMDG): AStowage and handling (IMDG): SW19

Properties and observations (IMDG) : Electrical batteries containing lithium encased in a rigid metallic body. Lithium 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.

#### Air transport

PCA Excepted quantities (IATA) : E0
PCA Limited quantities (IATA) : Forbidden
PCA limited quantity max net quantity (IATA) : Forbidden
PCA packing instructions (IATA) : 969
PCA max net quantity (IATA) : 5kg
CAO packing instructions (IATA) : 969
CAO max net quantity (IATA) : 35kg

Special provisions (IATA) : A88, A99, A154, A164, A181, A185, A206, A213, A802

ERG code (IATA) : 12FZ

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#### Inland waterway transport

Classification code (ADN) : M4

Special provisions (ADN) : 188, 230, 310, 360, 376, 377, 387, 390, 670

Limited quantities (ADN) : 0

Excepted quantities (ADN) : E0

Equipment required (ADN) : PP

Number of blue cones/lights (ADN) : 0

#### Rail transport

Classification code (RID) : M4

Special provisions (RID) : 188, 230, 310, 360, 376, 377, 387, 390, 670

Limited quantities (RID) : 0
Excepted quantities (RID) : E0

Packing instructions (RID) : P903, 908, 909, P910, P911, LP903, LP904, LP905, LP906

Transport category (RID) : 2
Colis express (express parcels) (RID) : CE2
Hazard identification number (RID) : 90

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

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 one substance (s) from the list of candidate substances of REACH: 1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME) (EC 203-794-9, CAS 110-71-4)

#### **PIC Regulation (Prior Informed Consent)**

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

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

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

#### Ozone Regulation (1005/2009)

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

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

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

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

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on drug precursors)

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#### 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 39	Occupational diseases caused by manganese dioxide	

#### Germany

**Employment restrictions** 

Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG). WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1).

Water hazard class (WGK) Storage class (LGK, TRGS 510) Joint storage table

LGK 11 - Combustible solids.

: Observe restrictions according Act on the Protection of Working Mothers (MuSchG).

LGK	1	LGK 2A	LGK 2B	LGK 3	LGK 4.1A
LGK 4	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 6.2	LGK 7	LGK 8A	LGK 8B
LGK	10	LGK 11	LGK 12	LGK 13	LGK 10-13

Joint storage not permitted for

Joint storage permitted for

Joint storage with restrictions permitted for

Hazardous Incident Ordinance (12. BImSchV)

: LGK 1, LGK 5.1A, LGK 6.2, LGK 7.

: 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,

LGK 6.1B.

: LGK 2B, LGK 4.1B, LGK 6.1C, LGK 6.1D, LGK 8A, LGK 8B, LGK 10, LGK 11, LGK 12,

: Z(1) - non biodegradable substances with hazardous properties for humans and the

environment (carcinogenicity/ mutagenicity/ reprotoxicity/bioacumulative potential/ toxicity or

LGK 13, LGK 10-13.

: Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

#### **Netherlands**

ABM category

persistence) SZW-lijst van kankerverwekkende stoffen : Lithium perchlorate is listed SZW-lijst van mutagene stoffen Lithium perchlorate is listed SZW-lijst van reprotoxische stoffen - Borstvoeding

SZW-lijst van reprotoxische stoffen -

Vruchtbaarheid

Switzerland Storage class (LK)

SZW-lijst van reprotoxische stoffen - Ontwikkeling

: None of the components are listed : 1,2-Dimethoxyethane is listed

: 1,2-Dimethoxyethane is listed

: LK 11/13 - Solids

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

#### **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)	

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Abbreviations and acronyms:		
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	
IATA	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	
PBT	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. 4 (Inhalation)	Acute toxicity (inhal.), Category 4	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2	
Flam. Liq. 2	Flammable liquids, Category 2	
H225	Highly flammable liquid and vapour.	
H260	In contact with water releases flammable gases which may ignite spontaneously.	
H271	May cause fire or explosion; strong oxidiser.	
H302	Harmful if swallowed.	

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Full text of H- and EUH-statements:		
H314	Causes severe skin burns and eye damage.	
H319	Causes serious eye irritation.	
H332	Harmful if inhaled.	
H360FD	May damage fertility. May damage the unborn child.	
Ox. Liq. 1	Oxidising Liquids, Category 1	
Repr. 1B	Reproductive toxicity, Category 1B	
Skin Corr. 1	Skin corrosion/irritation, Category 1	
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B	
Water-react. 1	Substances and Mixtures which, in contact with water, emit flammable gases, Category 1	

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.