### Lithium Iron Phosphate (LiFePO4) **Rechargeable Batteries**

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

### **1.1. Product Identifier**

Product form	: Article
Trade name	: Lithium Iron Phosphate (LiFePO4) Rechargeable Batteries
Part number(s)	: PSL-BTP-24500, PSL-BTP-12100
Type of product	: Battery
Document no.	: MSDS221ENEU
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### 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	: Industrial uses, Professional uses, Consumer use
Use of the substance/mixture	: Battery

### 1.2.2. Uses advised against

No additional information available

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

#### Supplier

GRACO DISTRIBUTION BV Slakweidestraat 31 3630 Maasmechelen - Belgium T +32 89 770 700 reach@graco.com - www.graco.com

#### Manufacturer

**Power-Sonic Corporation** 7550 Panasonic Way San Diego, CA 92154 - Unites States T 1 619 991 2020

## 1.4. Emergency telephone number

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

### 2.1. Classification of the substance or mixture

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

### 2.2. Label elements

#### Labeling according to Regulation (EC) No. 1272/2008 [CLP] Child-resistant fastening : Not applicable Tactile warning : Not applicable

GRACO Ltd. 29 Wellington St LS1 4DL Leeds - United Kingdom T 0800 404 76 60 reach@graco.com

### Supplier

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### 2.3. Other hazards

Other hazards

: The rechargeable Li-ion battery cells described in this Safety Data Sheet are sealed units which are not hazardous when used according to the manufacturer's recommendations. Results of PBT and vPvB assessment : Not applicable.

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

The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

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

### 3.1. Substances

Not classified

#### 3.2. Mixtures

Substance name	Product Identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
lambda2-iron(2+) lithium(1+) phosphate	CAS-No.) 15365-14-7 (EC-No.) 604-917-2	23 - 33	Not classified
carbon	CAS-No.) 7440-44-0 (EC-No.) 231-153-3	12 - 17	Not classified

### **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

Additional advice	: The rechargeable Li-ion battery cells described in this Safety Data Sheet are sealed units which are not hazardous when used according to the manufacturer's recommendations. Risk of exposure only occurs if the battery cell is mechanically, thermally, or electrically abused and the enclosure is compromised. If this occurs, exposure to electrolyte solutions contained in the battery cell may occur by inhalation, eye contact, skin contact, or ingestion. First aider: Pay attention to self-protection!. Concerning personal protective equipment to use, see section 8. Never give anything by mouth to an unconscious person. In case of doubt or persistent symptoms, consult always a physician. Show this safety data sheet to the doctor in attendance. Treat symptomatically.
Inhalation	: Remove casualty to fresh air and keep warm and at rest. In case of doubt or persistent symptoms, consult always a physician.
Skin contact	: Remove contaminated clothing and shoes. Gently wash with plenty of soap and water. In case of doubt or persistent symptoms, consult always a physician.
Eyes contact	: Rinse immediately carefully and thoroughly with eye-bath or water. In case of doubt or persistent symptoms, consult always a physician.
Ingestion	: Rinse mouth thoroughly with water. Drink plenty of water. In case of doubt or persistent symptoms, consult always a physician.
4.2. Most important symptoms and effective states and effective symptoms and effective symptometry symptometry and symptometry	ffects, both acute and delayed
Inhalation	: Health injuries are not known or expected under normal use.
Skin contact	: Health injuries are not known or expected under normal use.
Eyes contact	: Health injuries are not known or expected under normal use.

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Ingestion

: Health injuries are not known or expected under normal use.

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### 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	: Flood with plenty of water. Alcohol resistant foam. carbon dioxide (CO2), dry chemical powder, foam. Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: Not determined
5.2. Special hazards arising from	the substance or mixture
Specific hazards	: Not flammable. Exposing battery cell to excessive heat, fire, or over voltage condition may cause a leak, fire, hazardous vapors, and hazardous decomposition products.
Hazardous decomposition products in case of fire	: Toxic and corrosive fumes are released.
5.3. Advice for firefighters	
Firefighting instructions	: Evacuate area. Use water spray or fog for cooling exposed containers. Contain the extinguishing fluids by bunding. Prevent fire fighting water from entering the environment.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus.
Other information	: Do not allow run-off from fire-fighting to enter drains or water courses. Dispose of waste in accordance with environmental legislation.

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

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

6.1.1. For non-emergency personnel	
For non-emergency personnel	: Evacuate unnecessary personnel. Keep upwind. Provide adequate ventilation. Wear recommended personal protective equipment. Concerning personal protective equipment to use, see section 8. Do not breathe vapors. Avoid contact with skin, eyes and clothing.
6.1.2. For emergency responders	
For emergency responders	: Ensure procedures and training for emergency decontamination and disposal are in place. Concerning personal protective equipment to use, see section 8.
6.2. Environmental precautions	

Do not allow to enter into surface water or drains. Notify authorities if product enters sewers or public waters.

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

Methods for cleaning up	: Stop leak if safe to do so. Dam up the solid spill. Take up mechanically (sweeping, shoveling)
	and collect in suitable container for disposal. Large spills: scoop solid spill into closing
	containers. This material and its container must be disposed of in a safe way, and as per
	local legislation.

#### 6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

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### **SECTION 7: Handling and storage**

### 7.1. Precautions for safe handling

Precautions for safe handling	: Provide adequate ventilation. Use personal protective equipment as required. Concerning personal protective equipment to use, see section 8. Do not expose the battery to high temperatures or fire. Disconnect the battery before working on or near any disposed part of the vehicle electrical system. Take precautionary measures against static discharge. Do not allow to enter into surface water or drains. Avoid shock and friction. Do not disassemble, short circuit, puncture, incinerate, crush, or puncture the battery.
Hygiene measures	: Keep good industrial hygiene. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product. Keep away from food, drink and animal feeding-stuffs. Remove contaminated clothes. Wash contaminated clothing before reuse.
7.2. Precautions for safe handlin	g
Storage conditions	: Keep container tightly closed. Store in a dry, cool and well-ventilated place. Keep away from heat. Protect from moisture.
Packaging materials	: Keep only in the original container.
7.3. Specific end use(s)	

For further information see section 1.

### **SECTION 8: Exposure controls/personal protection**

### 8.1. Control parameters

carbon (7440-44-0)		
Austria	MAK (OEL TWA)	
Austria	MAK (OEL STEL)	
Poland	NDS (OEL TWA)	

Additional information	: Recommended monitoring procedures. Personal air monitoring. Room air monitoring.
8.2. Exposure controls	
Engineering measure(s)	: Provide adequate ventilation. Organizational measures to prevent /limit releases, dispersion and exposure. See Section 7 for information on safe handling.
Personal protective equipment	: The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Hand protection	: Not required for normal conditions of use
Eye protection	: Not required for normal conditions of use
Body protection	: Wear suitable working clothes.
Respiratory Protection	: Not required for normal conditions of use
Thermal Hazard protection	: Not required for normal conditions of use. Use dedicated equipment.
Environmental exposure controls	: Avoid release to the environment. Comply with applicable Community environmental protection legislation.

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

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

Physical state	: Solid
Appearance	: Lithium batteries
Colour	: No data available.
Odour	: None
Odour	: No data available.
Odour threshold	: No data available.
рН	: No data available.
pH solution	: Not available
Relative evaporation rate (butylacetate=1)	: No data available.
Melting / freezing point	: No data available.
Freezing point	: No data available.
Initial boiling point and boiling range	: No data available.
Flash point	: No data available.
Auto-ignition temperature	: No data available.
Decomposition Temperature	: No data available.
Flammability	: No data available.
Vapour pressure	: No data available.
Vapour density	: No data available.
Relative density	: No data available.
Solubility	: Water: No data available
Partition coefficient n-octanol/water	: No data available.
Kinematic viscosity	: No data available.
Dynamic viscosity	: No data available.
Explosive propoerties	: Not applicable. The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.
Oxidising proporties	: Not applicable. The classification procedure needs not to be applied because there are no chemical groups present in the molecule which are associated with oxidising properties.
Explosive limits	: No data available.
Particle size	: Not available.
Particle size distribution	: Not available.
Particle shape	: Not available.
Particle aspect ratio	: Not available.
Particle aggregation state	: Not available.
Particle agglomeration state	: Not available.
Particle specific surface area	: Not available.
Particle dustiness	: 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

None under normal conditions. Reference to other sections: 10.4 & 10.5.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. See Section 7 for information on safe handling.

### 10.4. Conditions to avoid

Do not expose the battery to high temperatures or fire. Protect from moisture. See Section 7 for information on safe handling.

### 10.5. Incompatible materials

None under normal processing. See Section 7 for information on safe handling.

### 10.6. Hazardous decomposition products

Reference to other sections 5.2

### **SECTION 11: Toxicological information**

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity : Not classified (Article: Not applicable)

Acute toxicity	. Not classified (Article. Not applicable)	
lambda2-iron(2+) lithium(1+) phosphate (15365-14-7)		
LD50/dermal/rat	> 2000 mg/kg	
LC50/inhalation/4h/rat	> 3,2 mg/l/4h	
carbon (7440-44-0)		
LD50/oral/rat	> 10000 mg/kg	
Skin corrosion/irritation	: Not classified (Article: Not applicable) pH: No data available	
Serious eye damage/irritation	: Not classified (Article: Not applicable) pH: No data available	
Respiratory or skin sensitisation	: Not classified (Article: Not applicable)	
Germ cell mutagenicity	: Not classified (Article: Not applicable)	
Carcinogenicity	: Not classified (Article: Not applicable)	
Reproductive toxicity	: Not classified (Article: Not applicable)	
STOT-single exposure	: Not classified (Article: Not applicable)	
STOT-repeated exposure	: Not classified (Article: Not applicable)	
Aspiration hazard	: Not classified (Article: Not applicable)	
Lithium Iron Phosphate (LiFePO4) Rechargeable Batteries		
Kinematic viscosity	No data available	
Other information	: Symptoms related to the physical, chemical and toxicological characteristics. For further information see section 4.	

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### 11.2. Information on other hazards

11.2.1. Endocrine disrupting propertiesAdverse health effects caused by<br/>endocrine disrupting properties: Article: Not applicable, Electrolyte :The mixture does not contain substance(s) included in<br/>the list established in accordance with Article 59(1) of REACH for having endocrine<br/>disrupting properties, or is not identified as having endocrine disrupting properties in<br/>accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or<br/>Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %11.2.2. Other information: Symptoms related to the physical, chemical and toxicological characteristics, For further<br/>information see section 4

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

<u>12.1. Toxicity</u>	
Environmental properties	: The rechargeable Li-ion battery cells described in this Safety Data Sheet are sealed units which are not hazardous when used according to the manufacturer's recommendations.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified
12.2. Persistence and degradability	
Lithium Iron Phospate (LiFePO4) Red	chargeable Batteries
Persistence and degradability	Article: Not applicable.
12.3. Bioaccumulative potential	
Lithium Iron Phospate (LiFePO4) Red	chargeable Batteries
Bioaccumulative potential	Article: Not applicable.
lambda2-iron(2+) lithium(1+) phosph	ate (15365-14-7)
Partition coefficient n-octanol/water	> 0,564 (at 20 °C)
<u>12.4. Mobility in soil</u>	
Lithium Iron Phospate (LiFePO4) Red	chargeable Batteries
Mobility in soil	Not applicable
12.5. Results of PBT and vPvB asses	isment
Lithium Iron Phospate (LiFePO4) Red	chargeable Batteries
Results of PBT assessment	Not applicable
12.6. Endocrine disrupting propertie	<u>s</u>
Adverse effects on the environment caused by endocrine disrupting properties	: Article: Not applicable, Electrolyte : The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %
12.7. Other adverse effects	
Other adverse effetcs	: No data available

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### **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Additional information

: Comply with local regulations for disposal. Dispose of Battery to a hazardous or special waste collection point. Do not puncture or incinerate. Do not pierce or burn, even after use. Refer to manufacturer/supplier for information on recovery/recycling.

European waste catalogue (2001/573/EC, 75/442/EEC, 91/689/EEC) : Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities The following Waste Codes are only suggestions: other batteries and accumulators (CH: 16 06 05 ds).

### **SECTION 14a: Transport Information (BATTERIES ONLY)**

In accordance with ADR / RID / IMDG / IATA / ADN ADR IMDG IATA ADN RID 14a.1. UN number 3480 3480 3480 3480 3480 14a.2. Un proper shipping name LITHIUM ION BATTERIES Transport document description UN 3480 LITHIUM ION **BATTERIES**, 9 BATTERIES, 9A, BATTERIES, 9A BATTERIES, 9A BATTERIES, 9A, (E) 14a.3. Transport hazard class(es) 9A 9A 9A 9A 9A 14a.4 Packing group Not applicable Not applicable Not applicable Not applicable Not applicable 14a.5. Environmental hazards Dangerous for the environment: No environment: No environment: No environment: No environment: No Marine pollutant: No No supplementary information available 14a.6. Special precautions for user Special precautions for user : This battery has passed the UN manual of tests and criteria part III 38.3 requirements. - Overland transport Classification code (ADR) : M4 Special provisions : 188, 230, 310, 348, 376, 377, 387, 636 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 : E EAC code :2Y

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### - Transport by sea

Special provisions (IMDG)	: 188, 230, 310, 348, 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)	: F-A
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.
- Air transport	
PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Forbidden
PCA limited quantity max net quantity (IATA)	: Forbidden
PCA packing instructions (IATA)	: Forbidden
PCA max net quantity (IATA)	: Forbidden
CAO packing instructions (IATA)	: See 965
CAO max net quantity (IATA)	: See 965
Special provisions (IATA)	: A88, A99, A154, A164, A183, A201, A206, A213, A331, A334, A802
ERG cod (IATA)	: 12 FZ
<ul> <li>Inland waterway transport</li> </ul>	
Classification code (ADN)	: M4
Special provisions (ADN)	: 188, 230, 310, 348, 376, 377, 387, 636
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, 348, _376, 377, 387, 636
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 Maritime transport in bulk according to IM	O instruments
Code: IPC	· Not applicable

Code: IBC

: Not applicable

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### SECTION 14b: Transport Information (BATTERIES CONTAINED IN EQUIPMENT)

In accordance with ADR / RID / IMDG / IATA / ADN IATA RID ADR IMDG ADN 14a.1. UN number 3481 3481 3481 3481 3481 14a.2. UN proper shipping name LITHIUM ION BATTERIES CONTAINED IN CONTAINED IN CONTAINED IN CONTAINED IN CONTAINED IN EQUIPMENT EQUIPMENT EQUIPMENT EQUIPMENT EQUIPMENT Transport document description LITHIUM ION BATTERIES CONTAINED IN CONTAINED IN CONTAINED IN CONTAINED IN CONTAINED IN EQUIPMENT, 9A, (E) EQUIPMENT, 9 EQUIPMENT, 9A EQUIPMENT, 9A EQUIPMENT, 9A 14a.3 Transport Hazard Class(es) 9A 9A 9A 9A 9A IMDG ADN ADR IATA RID 14.4 Packing group Not applicable Not applicable Not applicable Not applicable Not applicable 14.5. Environmental hazards Dangerous for the environment: No environment: No environment: No environment: No environment: No Marine pollutant: No No supplementary information available 14.6. Special precautions for user Special precautions for user : This battery has passed the UN manual of tests and criteria part III 38.3 requirements. - Overland transport Classification code (ADR) : M4 Special provisions : 188, 230, 310, 348, 360, 376, 377, 387, 390, 670 Limited quantities (ADR) : 0 Excepted quantities (ADR) : F0 : P903, P908, P909, P910, P911, LP903, LP904, LP905, LP906 Packing instructions (ADR) Transport category (ADR) :2 Tunnel restriction code : E EAC code :2Y - Transport by sea Special provisions (IMDG) : 188, 230, 310, 348, 360, 376, 377, 384, 387 Limited quantities (IMDG) : 0 Excepted quantities (IMDG) • F0 Packing instructions (IMDG) : P903, P908, P909, P910, P911, LP903, LP904, LP905, LP906 EmS-No. (Fire) : F-A EmS-No. (Spillage) : S-I

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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.
- Air transport	
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)	: 5 kg
CAO packing instructions (IATA)	: 967
CAO max net quantity (IATA)	: 35 kg
Special provisions (IATA)	: A48, A88, A99, A154, A164, A181, A185, A206, A213, A220
ERG cod (IATA)	: 12 FZ
<ul> <li>Inland waterway transport</li> </ul>	
Classification code (ADN)	: M4
Special provisions (ADN)	: 188, 230, 310, 348, 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, 348, 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 Maritime transport in bulk according to IMC	<u>D instruments</u>
Code: IBC	: 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

Contains no substance on the REACH candidate list

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### 15.1.2. National regulations

No ICPE	Installations classées Désignation de la rubrique	Code Régime	Rayon
na	Not Applicable	na	na
Germany			
Regulatory reference	: Not classified according to Regulation ( Hazardous to Waters (AwSV)	Governing Systems for Handlir	ng Substances
WGK remark	: Not applicable		
Hazardous Incident Ordinance (12. BImSchV)	: Is not subject of the 12. BlmSchV (Haza	rdous Incident Ordinance)	
Netherlands			
Waterbezwaarlijkheid	: Not applicable		
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 – Vruchtbaarheid	: None of the components are listed		
SZW-lijst van reprotoxische stoffen – Ontwikkeling	: None of the components are listed		

#### 15.2. Chemical safety assessment

Article: Not applicable

### **SECTION 16: Other information**

#### Abbreviations and acronyms

ABM = Algemene beoordelingsmethodiek		
ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin		
ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route		
CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC		
IATA = International Air Transport Association		
IMDG = International Maritime Dangerous Goods Code		
LEL = Lower Explosive Limit/Lower Explosion Limit		
UEL = Upper Explosion Limit/Upper Explosive Limit		
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals		
BTT = Breakthrough time (maximum wearing time)		
DMEL = Derived Minimal Effect level		
DNEL = Derived No Effect Level		
EC50 = Median Effective Concentration		
EL50 = Median effective level		
ErC50 = EC50 in terms of reduction of growth rate		
ErL50 = EL50 in terms of reduction of growth rate		
EWC = European waste catalogue		
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LC50 = Median lethal concentration
LD50 = Median lethal dose
LL50 = Median lethal level
NA = Not applicable
NOEC = No observed effect concentration
NOEL: no-observed-effect level
NOELR = No observed effect loading rate
NOAEC = No observed adverse effect concentration
NOAEL = No observed adverse effect level
N.O.S. = Not Otherwise Specified
OEL = Occupational Exposure Limits - Short Term Exposure Limits (STELs)
PNEC = Predicted No Effect Concentration
Quantitative structure-activity relationship (QSAR)
STOT = Specific Target Organ Toxicity
TWA = time weighted average
VOC = Volatile organic compounds
WGK = Wassergefährdungsklasse (Water Hazard Class under German Federal Water Management Act)

Sources of key data used to compile the datasheet Training advice Other information

- : ECHA (European Chemicals Agency), supplier SDS, Loli.
- : Training staff on good practice.

: This battery has passed the UN manual of tests and criteria part III 38.3 requirements. The rechargeable Li-ion battery cells described in this Safety Data Sheet are sealed units which are not hazardous when used according to the manufacturer's recommendations. Classification - Assessment method: CLP Calculation method (Article 9). Not applicable. Article.

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878 Classification according to Regulation (EC) No. 1272/2008 [CLP] Labelling according to Regulation (EC) No. 1272/2008 [CLP]

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