

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
Reference number: sfl_0007
Issue date: 04/11/2022 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form : Article
Trade name : Li-Ion Battery (7.4V; 2000mAh; 14.8Wh) in Hand-held Vacuum Cleaner
Product code : HV7144

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 : Batteries and accumulators

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Severin Elektrogeräte GmbH
Röhre, 27
DE- 59846 Sundern
T +49 2933 982 - 460 - F +49 2933 982 - 7460
service@severin.de - www.severin.com

1.4. Emergency telephone number

Emergency number : +49 2933 982 - 460 (MO - FR 8:00 - 17:00)

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	+44 20 7188 7188	

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]**

Child-resistant fastening : Not applicable
Tactile warning : Not applicable

2.3. Other hazards

Other hazards which do not result in classification : The batteries 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. Damaged or opened cells or batteries can result in rapid heating and the release of flammable vapors. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

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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

Other information : These batteries are not 'substances' or 'mixtures' according to Regulation (EC) No 1907/2006 EC. In contrast, they have to be regarded as being 'articles', the release of substances is not intended during handling. Therefore, according to Regulation (EC) 1907/2006, Article 31, there is no obligation to supply a "safety data sheet".

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Comments : Article
Lithium ion batteries contained in equipment

This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of REACH Annex II

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Move the affected person away from the contaminated area. Get medical advice/attention if you feel unwell.
First-aid measures after inhalation : Inhalation of material from a sealed battery is not expected to be a route of exposure.
First-aid measures after skin contact : Contact between the battery and skin will not cause any harm.
First-aid measures after eye contact : Contact between the battery and eye will not cause any harm.
First-aid measures after ingestion : Ingestion unlikely.

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

Symptoms/effects : 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.
Symptoms/effects after inhalation : Vapours or mists from a ruptured battery may cause respiratory irritation.
Symptoms/effects after skin contact : Skin contact with a ruptured battery can cause skin irritation. Burns.
Symptoms/effects after eye contact : Eye contact with the contents of a ruptured battery can cause severe irritation to the eye. Burns. Risk of serious damage to eyes.
Symptoms/effects after ingestion : Electrolytes for batteries. Burns to the gastric/intestinal mucosa.
Chronic symptoms : Electrolytes for batteries. Repeated or prolonged exposure to high levels may affect the liver and kidneys.

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 chemical, CO₂, or water spray or regular foam.
Unsuitable extinguishing media : high volume water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Exposing battery cell to excessive heat, fire, or over voltage condition may cause a leak, fire, hazardous vapors, and hazardous decomposition products.
Explosion hazard : Do not short circuit, puncture, incinerate, crush, immerse in water, or expose to temperatures outside the temperature range stipulated by the manufacturer for the product. If this occurs, electrolyte leakage, or battery vent/explosion/fire may also occur depending on the circumstances.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

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5.3. Advice for firefighters

Firefighting instructions	: Cool down the containers/equipment exposed to heat with a water spray. Ensure that there is no direct contact between the water and the product. Do not allow water to enter the vessels, a violent reaction may occur.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
Other information	: Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Do not allow run-off from fire-fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: No special measures required. The battery contains organic electrolyte. Further actions are required in case of electrolyte leakage from the battery.
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6.1.1. For non-emergency personnel

Emergency procedures	: Notify fire brigade and environmental authorities. Do not touch spilled material.
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6.1.2. For emergency responders

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Evacuate unnecessary personnel. Prevent further leakage or spillage if safe to do so.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment	: Stop leak without risks if possible.
Methods for cleaning up	: Pick up mechanically. Electrolyte. Absorb with an inert material and place in an appropriate waste disposal container.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

Exposure controls and personal protection. See Section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Do not disassemble, short circuit, puncture, incinerate, crush, or puncture the battery. Do not expose the battery to high temperatures or fire.
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7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Ensure adequate ventilation, especially in confined areas.
Storage conditions	: Do not expose the battery to high temperatures or fire. Avoid contact with water. Keep container tightly closed. Keep only in original container.
Storage temperature	: < 30 °C
Heat and ignition sources	: Keep away from sources of ignition - No smoking. Damaged or opened cells or batteries can result in rapid heating and the release of flammable vapors. Electrolyte leakage, electrode materials reacting with moisture/water, or battery vent/explosion/fire may follow depending on the circumstances.
Storage area	: Store in a dry place. Store in a well-ventilated place.

7.3. Specific end use(s)

Lead batteries.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

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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

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

No specific measures are required provided the product is handled in accordance with the general rules of occupational hygiene and safety.

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:

Contact between the battery and eye will not cause any harm. Eye protection not applicable

8.2.2.2. Skin protection

Skin and body protection:

Contact between the battery and skin will not cause any harm. No special clothing/skin protection equipment is recommended under normal conditions of use

Hand protection:

Not required for normal conditions of use

8.2.2.3. Respiratory protection

Respiratory protection:

Inhalation of material from a sealed battery is not expected to be a route of exposure. No respiratory protection needed under normal use conditions

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid discharge to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Various colours.
Appearance	: Article. Lithium ion batteries.
Odour	: odourless.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not available
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

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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
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

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

Exposing battery cell to excessive heat, fire, or over voltage condition may cause a leak, fire, hazardous vapors, and hazardous decomposition products.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Damaged or opened cells or batteries can result in rapid heating and the release of flammable vapors. Exposing battery cell to excessive heat, fire, or over voltage condition may cause a leak, fire, hazardous vapors, and hazardous decomposition products.

10.4. Conditions to avoid

Direct sunlight. Overheating. Water, humidity. Do not disassemble, short circuit, puncture, incinerate, crush, or puncture the battery.

10.5. Incompatible materials

metals. Acids. Incompatible with water, humid air.

10.6. Hazardous decomposition products

Exposing battery cell to excessive heat, fire, or over voltage condition may cause a leak, fire, hazardous vapors, and hazardous decomposition products.

SECTION 11: Toxicological information

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

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Contact between the battery and skin will not cause any harm. Skin contact with a ruptured battery can cause skin irritation.
Serious eye damage/irritation	: Contact between the battery and eye will not cause any harm. Eye contact with the contents of a ruptured battery can cause severe irritation to the eye.

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Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Inhalation of material from a sealed battery is not expected to be a route of exposure. Vapours or mists from a ruptured battery may cause respiratory irritation.
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. No data available on ecotoxicity.
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

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

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This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

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

Regional legislation (waste)	: Regulation on the Management of Waste Batteries and Accumulators published in the Official Journal numbered 25569 on August 31, 2004.
Product/Packaging disposal recommendations	: When battery is to be disposed of, isolate the battery's positive (+) and negative (-) terminals to avoid these terminals from touching each other.
Additional information	: Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.
European List of Waste (LoW) code	: 16 06 05 - other batteries and accumulators




SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

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ADR	IMDG	IATA
14.1. UN number or ID number		
UN 3481	UN 3481	UN 3481
14.2. UN proper shipping name		
LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT	LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT	Lithium ion batteries contained in equipment
Transport document description		
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
14.3. Transport hazard class(es)		
9A	9A	9A
		
14.4. Packing group		
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
No supplementary information available		

14.6. Special precautions for user

Overland transport

Classification code (ADR) : M4
 Special provisions (ADR) : 188, 230, 310, 348, 360, 376, 377, 387, 390, 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 : 2Y

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) : 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

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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

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 no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 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 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

No additional information available

15.2. Chemical safety assessment

No additional information available

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)
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008

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Abbreviations and acronyms:	
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
ED	Endocrine disrupting properties
EC-No.	European Community number
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
IOELV	Indicative Occupational Exposure Limit Value
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
N.O.S.	Not Otherwise Specified
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
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TLM	Median Tolerance Limit
TRGS	Technical Rules for Hazardous Substances
ThOD	Theoretical oxygen demand (ThOD)
VOC	Volatile Organic Compounds
WGK	Water Hazard Class
vPvB	Very Persistent and Very Bioaccumulative

The classification complies with : ATP 12

SDS EU (REACH Annex II)

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.