

Safety Data Sheet



according to Regulation (EC) No 1907/2006 (REACH)

Trade name: BATTERIES, WET, NON-SPILLABLE, electric storage

Revision date: 14.08.2023

Previous version: 14.08.2023

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SECTION 1: Substance/mixture and company identification:

1.1 Product identifier:

The product is considered an article in accordance with Regulation 1907/2006 / EC (REACH) for which no safety data sheet is required.

The following information is for reference only to ensure the safe use of the product.

Product name: **Valve Regulated Lead-Acid Battery, Non-spillable Battery – UN2800**

CAS No - **not applicable**

Index No - **not applicable**

EC No - **not applicable**

REACH No - **not applicable**

Authorisation No - **not applicable**

Mixtures: **not applicable**

1.2 Identified uses that are relevant and uses that are not recommended

1.2.1. Identified relevant uses

Rechargeable battery for professional use

1.2.2 Identified uses that are not recommended

There are no uses that are not recommended

1.3 Details of the supplier of the safety data sheet:

Name: **Batteripoolen AB**

Address: **Fredriksbergsgatan 2, Sweden**

Phone: **+4675 242 43 00**

E-mail: **kundsupport@batteripoolen.se**

1.4 Emergency telephone number:

Medical facility: **Swedish National Toxicology Center**

Emergency phone/fax: **010-456 6700**

EU single emergency telephone number: **112 (Police, Fire department)**

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SECTION 2: Hazards identification:

2.1 Classification of the substance or mixture:

Classification according to Regulation 1272/2008 / EC (CLP):

Does not apply to the finished product as an article.

2.2 Label elements:

Does not apply to the finished product as an article. Applicable to components that are not in contact with the rechargeable battery when it is in normal state. Therefore, in accordance with chemical safety regulations, product labelling is not mandatory.

2.3 Other hazards:

During charging, a mixture of explosive substances, gases containing hydrogen, may form inside the battery. Flames, lit cigarettes, sparks, or hot materials should be avoided near the battery. Avoid short-circuits between terminals.

Use antistatic materials when cleaning. Batteries should be stored in clean and ventilated areas, protected from direct sunlight and away from sources of heat.

The diluted sulfuric acid solution is corrosive and irritating to the eyes and skin.

Not dangerous under normal conditions of use.

PBT and vPvB: This product does not contain PBT / vPvB chemicals.

SECTION 3: Composition/information on ingredients

3.1 Substances:

Not applicable.

3.2 Mixtures:

Lead-acid rechargeable batteries contain the following components:

| Common name | CAS number | EU number | REACH number | Concentration, (%) | Classification 1272/2008 / EC (CLP) | | |
|------------------------|------------|-----------|-----------------------|--------------------|-------------------------------------|----------------|------------------------|
| | | | | | Pictograms | Category | H phrases |
| Lead compounds (as Pb) | 7439-92-1 | 231-100-4 | 01-2119513221-59-0025 | 44±4 | GHS08 | Lact. Repr. 1A | H360FD H362 H372 |

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| | | | | | | | |
|----------------------------------|------------------------|------------------------|-----------------------|--------|-------------------------------------|---|--|
| Lead dioxide (PbO ₂) | 7439-92-1 1335-25-7 | 231-100-4 215-626-1 | - | 24±3 | GHS03; GHS08; GHS07; GHS09 | Ox. Sol. 3 Acute Tox. 4 Acute Tox. 4 Repr. 1 STOT RE 2 Aquatic Acute 1 Aquatic Chronic 1 | H272 H302 H332 H360 H373 H400 H410 |
| Sulfuric acid | 7664-93-9 | 231-639-5 | 01-2119458838-20-0104 | 22.6±4 | GHS05 | Skin. Corr 1A | H314 |

SECTION 4: First aid measures

4.1 Description of first aid measures

General information:

If in doubt or if symptoms occur, seek medical attention.

Never give anything by mouth to an unconscious person.

INHALATION: If breathing difficulties develop, remove person from exposure. If symptoms persist, seek medical attention.

SKIN CONTACT: Flush affected skin area with large amounts of water for 15 minutes, using deluge emergency shower. Remove contaminated clothing. If symptoms persist, seek medical attention.

EYE CONTACT: Force eyes open and rinse with clean, cool, running water for 15 minutes. Do not use eye drops or other medication unless advised to do so by a doctor. Seek immediate medical attention after rinsing.

INGESTION: Do not induce vomiting. If conscious, drink large quantities of milk or water. Seek medical attention immediately.

4.2 Disease and effects occurring after a certain period

No other important information is available.

4.3 Indication of any immediate medical attention and special treatment needed

No other important information is available.

SECTION 5: Fire-fighting measures

5.1 Fire extinguishers:

5.1.1. Suitable extinguishing media:

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Foam, dry chemical, and carbon dioxide.

Use appropriate media for surrounding fire. Avoid breathing vapours.

5.2 Special hazards arising from the substance or mixture:

Hazardous decomposition products:

Sulfuric acid: sulphur trioxide, carbon monoxide, sulfuric acid mist, sulphur dioxide and hydrogen sulphide.

Lead compounds: High temperatures can create toxic metal fumes, steam or dust;

Contact with a strong acid or base or the presence of nascent hydrogen can generate very toxic arsine gas.

Do not breathe dust/smoke/vapours/spray.

Avoid contact with eyes, skin, or clothing.

Avoid contact during pregnancy/lactation.

5.3 Precautions for firefighters:

Batteries release minimal amounts of gas during normal operation (gas recombination efficiency >99%). To avoid the risk of fire or explosion, keep sparks or other sources of ignition away from rechargeable batteries.

Do not allow metallic materials to contact with negative and positive battery terminals and rechargeable batteries.

Follow the manufacturer's instructions for installation and service.

SECTION 6: Accidental release measures:

6.1 Personal precautions, protective equipment, and emergency procedures

For non-emergency personnel:

Do not allow unprotected persons to the scene of the accident, no personal risk action should be taken.

Protective equipment: Always wear protective clothing.



6.2 Environmental precautions

Dispose of spilled material and waste in accordance with applicable environmental regulations.

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Prevent from entering sewage / soil / surface or ground water. Notify the relevant authorities according to local law in case of environmental pollution.

6.3 Methods and materials for spill containment and clean-up

Sweep or shovel spilled material and absorbent and place in approved containers. Dispose of any non-recyclable materials in accordance with local, state, provincial or federal regulations.

SECTION 7: Handling and storage:

7.1 Precautions for safe handling and storage

Storage

Store batteries in a dry, clean, and preferably cool location. Storage temperature range is between -20°C and +40°C.

As the batteries are supplied charged, storage time is limited. In order to easily charge the batteries after prolonged storage, it is advised not to store batteries for more than:

- 6 months at 20°C
- 3 months at 30°C
- 1.5 month at 40°C

Batteries have self-discharge <2% per month.

Special Sensitivity:

Avoid direct conductive connection across positive and negative terminals to prevent short-circuit.

Storage Precautions:

- Place cardboard between layers of stacked batteries to prevent accidental contact between terminals and/or other damages to the terminals or containers;
- Whenever feasible, store on shipping pallet or rack;
- Do not stack loaded pallets or racks on top of other batteries;
- Store batteries in cool, well-ventilated location;
- Store supplies of neutralizing substance in or near the storage area for emergency use.

Handling Precautions:

- Avoid contact with internal components of batteries;
- Do not smoke when working near a battery.

Other Precautions:

Keep away from combustible materials, organic chemicals, reducing substances, strong oxidizers, and water.

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SECTION 8: Exposure controls/personal protection:

8.1 Control parameters

Engineering controls/system design information:

Charge in areas with adequate ventilation. Do not install these batteries in sealed, unventilated areas.

Ventilation: The room must be ventilated and/or have built-in ventilation.

Respiratory Protection: Not required under normal conditions of use.

Eye protection: Protective glasses with side shields or goggles.

Skin protection: Wear chemical resistant gloves as a standard procedure to avoid skin contact. Wash hands after handling.

Other: None required under normal use conditions for gel/absorbed electrolyte-type batteries.

8.2 Exposure controls:

Personal precautions

Hygiene measures: Good general ventilation should be sufficient to control exposure of workers to air pollutants. Wash hands, elbows, and face thoroughly after handling chemical products, before eating, smoking, and using the toilet, and at the end of the working day.

Eye/face protection: Safety goggles complying with the approved standard must be worn when the risk assessment indicates this is necessary.

8.3 Environmental exposure controls:

Emissions from ventilation or work equipment must be checked to ensure that they comply with the requirements of environmental legislation.

SECTION 9: Physical and chemical properties:

Appearance: The entire battery is an article consisting of a plastic case with two tinned brass terminals.

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| | |
|-------------------------------|--|
| Odor: | The battery is odourless. |
| Odor threshold: | N/A |
| Physical state: | Sulfuric acid, liquid / Lead, solid |
| Boiling point: | 112-115 °C |
| Melting point: | N/A |
| Freezing point: | N/A |
| Vapour pressure: | 1.33 kPa |
| Solubility in water: | Lead, lead oxide and lead sulphate are insoluble in water. Sulfuric acid is 100% soluble in water. |
| Other safety characteristics: | No information |

SECTION 10: Stability and reactivity:

Stability:

This product is stable under normal conditions at ambient temperatures.

Incompatibility (material to avoid):

Heat, open flames, sparks, strong oxidizing or reducing agents.

Hazardous decomposition or by-products:

The product can emit highly toxic fumes when heated. Combustion can produce carbon dioxide and carbon monoxide. It releases an explosive hydrogen/oxygen gas mixture. Lead oxides, lead and/or lead compounds may be released. Sulfuric acid may release sulfur dioxide and/or sulfur trioxide.

Hazardous polymerization:

Will not occur.

Conditions to avoid:

Prolonged overcharging, sparks, and other sources of ignition.

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SECTION 11: Toxicological information:

11.1 Acute toxicity (Test Results Basis and Comments):

| Sulfuric Acid | |
|----------------------|--|
| Oral Rat | LD ₅₀ 2140 mg/kg (25 % solution) LC ₅₀ |
| Inhalation Rat | 510 mg/m ³ /2h |
| Inhalation Mouse | LC50 320 mg/m ³ /2h |
| Carcinogenicity | ACGIH:A2 Suspected Human Carcinogen OSHA: Select Carcinogen IARC: Group 1 Carcinogen |
| Lead | |
| Carcinogenicity | IARC: Group 2B Possible Human Carcinogen Risk phrase 61 |

11.2 Subchronic/chronic toxicity (Test Results and Comments):

Repeated exposure to lead and lead compounds in the workplace may result in nervous system toxicity. Some toxicologists report abnormal conduction velocities in person with blood-lead levels of 50 µg/100 ml or higher. Heavy lead exposure may result in central nervous system damage, encephalopathy, and damage to the blood-forming (hematopoietic) tissues.

Additional information:

- Very little chronic toxicity data available for elemental lead.
- Lead is listed by IARC as a 2B carcinogen: possible carcinogen in human.

SECTION 12: Ecological information:

12.1 Toxicity:

Electrolyte solution: may cause environmental hazards because of changes in pH groundwater.

Lead is very persistent in soils and sediments. No data available on biodegradation. Mobility of metallic lead between the environmental components is slow. Bioaccumulation of lead occurs in aquatic and terrestrial animals and plants, but very little bioaccumulation occurs through the food chain. Most studies have included lead compounds, not elemental lead.

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Ingredients information, aquatic toxicity:

| | |
|---------------|---|
| Sulfuric acid | 23-hour LC50 fresh water fish (Brachydanio rerio)-82 mg/l |
| | 96-hour LOEC fresh water fish (Cyprinus carpio)-22 mg/l |
| Lead | No data available |

12.2 Additional information:

- Not known effects on stratospheric ozone depletion
- Volatile organic compounds: 0 Vol %
- Water endangering Class (WGK): N/A

SECTION 13: Disposal considerations:

Lead-acid batteries are completely recyclable. Return whole scrap batteries to distributors, manufacturers, or secondary lead smelters for recycling.

Waste treatment of battery packs shall be carried out in accordance with the state regulations.

European waste catalog:

| Waste code | Name |
|------------|---------------------|
| 16 06 01* | lead-acid batteries |

It is not allowed used lead-acid batteries to be disposed in the domestic solid waste or to be mixed with other batteries.

SECTION 14: Transport information:

The batteries are securely packaged, protected from short-circuits, and labelled "Non-spillable".

Nordmax VRLA batteries are exempt from DOT Hazardous Material Regulations and IATA Dangerous Goods Regulations.

ADR/RID (road/rail):

Land Transport: Land Transport (ADR/RID, U.S. DOT)

UN N° UN2800

Classification ADR/RID: Class 8

Proper Shipping name: BATTERIES, WET, NON-SPILLABLE electric storage

Packing group ADR: not

Assigned Label required: Corrosive

ADR/RID: New and used batteries are exempt from all ADR/RID (special provisions 598)

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Special provision 295: Batteries need not be individually marked and labelled if the pallet bears the appropriate mark and label.

Special provision 598:

The following are not subject to the requirements of ADR:

(a) New storage batteries when:

- they are secured in such a way that they cannot slip, fall or be damaged;
- they are equipped with carrying devices, unless they are properly stacked, e.g. on pallets;
- there are no dangerous traces of alkalis or acids on the outside;
- they are protected against short-circuits.

(b) Used storage batteries when:

- their containers are not damaged;
- they are secured in such a way that they cannot leak, slip, fall or be damaged, e.g. by stacking on pallets;
- there are no dangerous traces of alkalis or acids on the outside;
- they are protected against short-circuits.

“Used storage batteries” means storage batteries carried for recycling at the end of their normal service life.

ICAO/IATA (air):

UN N° UM2800, Classification: Class 8

Proper shipping name: BATTERIES, WET, NON-SPILLABLE electric storage

Packing group: III

Label required: Corrosive

If non-spillable batteries comply with Special Provision A67, they are exempted from all IATA DGR codes, provided that the battery terminals are protected against short-circuits.

IMDG (sea):

UN N° UM2800, Classification: Class 8

Proper shipping name: BATTERIES, WET, NON-SPILLABLE electric storage

Packing group: III

EmS: FA, SB

Label required: Corrosive

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If non-spillable batteries comply with Special Provision 238, they are exempted from all IMDG codes, provided that the battery' terminals are protected against short-circuits.

SECTION 15: Regulatory information:

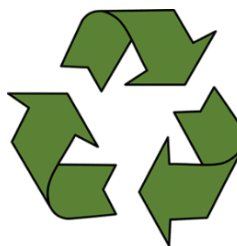
15.1 Health and safety regulations and health regulations / legislation specific to the environment of the substance or mixture:

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 on Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), to establish a European Chemicals Agency, amending Directive 1999/45 / EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) N° 1488/94, Council Directive 76/769 / EEC and Directive 91/155 / EEC, 93/67 / EEC, 93/105 / EC and 2000/21 / EC of the Commission;
- Regulation (EC) (1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing directives 67/548 / EEC and 1999/45 / EC and amending Regulation (EC) (1907/2006);
- DIRECTIVE 2006/66 / EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 6 September 2006 on batteries and accumulators and waste batteries and accumulators, and repealing Directive 91/157 / EEC.

In accordance with the EU Battery Directive and the relevant national legislation, lead-acid batteries must be marked with a crossed-out dustbin with the chemical symbol for lead below, together with the ISO return/recycling symbol.



Pb



SECTION 16: Other information:

The above information is provided in good faith based on current knowledge and does not constitute a guarantee of safety under all conditions. It is the responsibility of users to comply with the applicable laws and regulations.

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If there are any queries, the supplier should be consulted. However, this does not extend the warranty for any specific product characteristic and does not establish a legally valid contractual relationship.

Batteripoolen AB/OEM Electronics AB has registered the manufactured products SCIP: (rechargeable batteries) in

SCIP numbers: Stationary Battery FT

- **VRLA AGM FT** NM12V75FT, NM12V92FT, NM12V105FT, NM12V150FT, NM12V190FT - cb9acca4-91c1-4bfa-80f2-9c510c2f798b

Abbreviations:

ICAO: International Civil Aviation Organisation

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)