Safety Data Sheet

# Dry Charged Lead Battery (No acid)

**According to Regulation (EU) No 2020/878**
**According to Regulation (EC) No 1272/2008**

**Version 4.0**

**Issue date: 02/12/2019**
**Revision date: 18/04/2023**

## Section 1 Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier:

| | |
|---|---|
| Product Form: | Article |
| Product name: | Dry Charged Lead Battery (no Acid) |
| Product code : | Conventional (Dry) & Maintenance Free (MF) battery |
| UFI code: | N/A |

### 1.2 Relevant identified uses of the substance and uses advised against:

**1.2.1 Identified uses:** Motorcycle and powersport starter battery.

**1.2.2 Uses advised against:** Not available.

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

| | |
|---|---|
| Supplier: | **FULBAT SAS** |
| Address: | **30 Rue Pasteur** |
| | **92150 Suresnes** |
| | **France** |
| Telephone: | (France) +33 1 83 62 45 55 |

### 1.4 Emergency telephone Number:

| | | | | |
|---|---|---|---|---|
| CHEMTREC(US, Canada & Mexico) | 0086-1-800-424-9300 | | | |
| CHEMTREC (International) | 0086-1-703-527-3887 | | | |
| Available outside office hours? | YES | | NO | X |

## Section 2 Hazards Identification

### 2.1 Classification of the substance/mixture:

**2.1.1 Classification:**

The mixture is classified as following according to REGULATION (EC) No 1272/2008:

| | |
|---|---|
| Acute Tox. 4 (Oral) | H302 |
| Acute Tox. 4 (Inhalation:dust,mist) | H332 |
| Skin Corr. 1 | H314 |
| Eye Dam. 1 | H318 |
| May damage fertility or the unborn child | H360 |
| May cause harm to breast-fed children | H362 |
| Specific target organ toxicity (repeated exposure) Category 1A | H372 |
| Hazardous to the aquatic environment -Acute Hazard, Category 1 | H400 |
| Hazardous to the aquatic environment - Chronic Hazard, Category 1 | H410 |

*For full text of H- phrases: see section 16.*

## 2.2 label elements:

**Hazard Pictograms:**


**Signal Word(S):** Danger

**Hazard Statement:**

H302+H332 - Harmful if swallowed or if inhaled.
H314 - Causes severe skin burns and eye damage
H360 - May damage fertility. Suspected of damaging the unborn child
H372 - Causes damage to organs through prolonged or repeated exposure
H410 - Very toxic to aquatic life with long lasting effects

**Precautionary statement:**

P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P260 - Do not breathe dust/fume/gas/mist/vapours/spray
P301+P312 - IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell.
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

## 2.3 Other hazards:

Other hazards which do not result in classification: Lead may be toxic to blood, kidneys, central nervous system.
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
Contains no endocrine disruptor and PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

# Section 3 Composition/information on ingredients

**Substance/Mixture:** Mixture

**Ingredient(s):**

| Name | Product identifier | Concentration % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|---|---|---|
| **Lead** | (CAS No) 7439-92-1<br>(EC no) 231-100-4 | 56-63% | Repr. 1A, H360<br>STOT RE 1, H372<br>Aquatic Acute 1 H400 (M=10)<br>Aquatic Chronic 1, H410 (M=10) |
| **Antimony** | (CAS No) 7440-36-0<br>(EC no) 231-146-5 | 0.05-0.03% | Repr. 1A, H360 Lact., H362<br>Aquatic Chronic 3, H412 |

| | | | |
|---|---|---|---|
| **Lead dioxide** | CAS-No.: 1309-60-0 EC No.: 215-174-5 | 27-37% | Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Acute Tox. 4 (Inhalation:vapour), H332 Repr. 1A, H360 STOT RE 2, H373 Aquatic Acute 1, H400 |

| Name | Product identifier | Specific concentration limits |
|---|---|---|
| **Lead** | (CAS No) 7439-92-1<br>(EC no) 231-100-4 | 0.03 ≤C ≤ 100) Repr. 1A, H360D |

## Section 4 First aid measures

### 4.1 Description of first aid measures:

No hazards in case of an intact battery and using according the instructions. The battery should not be opened or burned. Exposure to the ingredients contained within or their combustion products could be harmful.

In all cases of doubt, or when symptoms persist, seek medical attention.

#### 4.1.1 In case of inhalation:

Remove to fresh air immediately. If breathing is difficult, give oxygen. Lead Compounds: Remove from exposure, gargle, wash nose and lips, consult physician.

#### 4.1.2 In case of skin contact:

Flush with large amounts of water for at least 15 minutes, remove any contaminated clothing. If irritation develops seek medical attention. Lead Compounds: Wash with soap and water.

#### 4.1.3 In case of eyes contact:

Flush immediately with water for 15 minutes, consult a physician. Lead Compounds: Flush immediately with water for 15 minutes, consult a physician.

#### 4.1.4 In case of ingestion:

Do not induce vomiting, consult a physician immediately. Lead Compounds: Consult a physician immediately.

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

Causes severe skin burns and eye damage. May damage fertility. May damage the unborn child. May cause harm to breast-fed children.

Symptoms/injuries after inhalation : In case of repeated or prolonged exposure : May cause respiratory irritation.

Symptoms/injuries after skin contact : Direct contact with internal components of a battery can be severely irritating to the skin and may result in redness, swelling, burns and severe skin damage. Skin contact may aggravate an existing dermatitis condition. Skin contact may aggravate dermatitis.

| | | |
|---|---|---|
| Symptoms/injuries after eye contact | : | Dust from this product may cause eyes irritation. Symptoms/injuries |
| after ingestion | : | Ingestion may cause nausea and vomiting. Abdominal pain. Diarrhea. |

**4.3 Indication of any immediate medical attention and special treatment needed:**

No further relevant information available.

## Section 5 Fire-Fighting measures

**5.1 Extinguishing media:**

**Suitable extinguishing media:** Use extinguishing media appropriate for surrounding fire- If a battery ruptures, use dry chemical, soda ash, lime, sand or carbon dioxide.

**Unsuitable extinguishing media:** None Know.

**5.2 Special hazards arising from the substance or mixture**

**Fire hazard :** On burning formation of metallic fumes. Battery may rupture due to pressure build-up when exposed to excessive heat and may be result in lhe release of corrosive materials.

**Hazardous decomposition products in case of fire** : Toxic gases and fumes may be released in a fire.

**5.3 Advice for firefighters:** Wear positive pressure self-contained breathing apparatus. Wear fully protective suit.

## Section 6 Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures:**

**General Measures:** Avoid contact with spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective equipment.

**6.1.1 For non-emergency personnel:** Use proper personal protective equipment as indicated in Section 8. Ensure adequate ventilation. Avoid contact with eyes. Wear protective equipment. Keep unprotected persons away.

**6.1.2 For emergency responders:** Wear positive pressure self-contained breathing apparatus if dust is generated.

**6.2 Environmental Precautions:** Do not allow product to reach sewage system or any water course. Inform respective authorities in case of seepage into water course or sewage system. Do not allow to enter sewers/ surface or ground water.

**6.3 Methods for Containment and Cleaning up:** In case the release occurs, stop flow of material: contain/absorb small spills with dry sand, earth, and vermiculite. If possible, carefully neutralize spilled electrolyte with soda ash, sodium bicarbonate, lime, etc. Wear acid-resistant clothing, boots, gloves, and face shield. Do not allow discharge of unneutralized acid to sewer. Spent

Batteries - send to secondary lead smelter for recycling. Follow applicable federal, state and local regulations Neutralize as in preceding step. Collect neutralized material in sealed container and handle as hazardous waste as applicable.

**6.4 Reference to other sections:**

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

## Section 7 Handling and storage

**7.1 Precautions for safe handling:**

**7.1.1 Protective measures:**

Ensure good ventilation/exhaustion at the workplace. Avoid contact with eyes. Keep ignition sources away - Do not smoke. Due to the battery's low internal resistance and high power density, high levels of short circuit current can be developed across the battery terminals. Do not rest tools or cables on the battery. Use insulated tools only. Follow all installation instructions and diagrams when installing or maintaining battery systems.

**7.1.2 Advice on general occupational hygiene:**

Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

**7.2 Conditions for safe storage, including any incompatibilities:**

Store batteries in a cool, dry, well ventilated area that are separated from incompatible materials and any activities which may generate flames, sparks, or heat. Keep away from all metallic articles that could contact the negative and positive terminals on a battery and create a short circuit condition. Battery should be stored under roof for protection against adverse weather conditions. Store and handle only in areas with adequate water supply and spill control. Avoid damage to battery case.

**7.3 Specific end use(s):**

Not applicable.

## Section 8 Exposure Controls/Personal Protection

**8.1 Control parameters:**

**8.1.1 Occupational exposure limits:**

| **Lead (7439-92-1)** | | |
|---|---|---|
| EU | European BEI | (Medium: blood - Time: no restriction - Parameter:<br><br>Lead (binding biological limit value)<br><br>0.075 mg/m3 (Medium: air - Time: 40 hours per week Parameter: Lead (TWA medical surveillance threshold in air measured as a time weighted average over 40 hours per week)<br><br>(Medium: blood - Time: no restriction – Parameter : Lead (medical surveillance threshold measured in individual |
| Austria | MAK (mg/m3) | 0.1 mg/m3 (inhalable fraction) |
| Austria | MAK Short time value (mg/m3) | 0.4 mg/m3 (inhalable fraction) |

| | | |
|---|---|---|
| Bulgaria | OEL TWA (mg/m3) | 0.05 mg/m3 |
| Bulgaria | Bulgaria - BEI | 300 µg/l (Medium: blood - Time: not lixed - Parameter: Lead (for women under 45 years old)<br>400 µg/l (Medium: blood - Time: not fixed - Parameter: Lead) |
| Croatia | GVI (graniëna vrijednost izloZenosti) (mg/m3) | 0.15 mg/m3 |
| Croatia | Croatia - BEI | (Medium: blood - Time: not critical - Parameter: Lead (Medical surveillance should be carried out lvhen the limit value of Lead in blood of workers >40 µg/100mL blood) |
| Cyprus | OEL TWA (mg/m3) | 0.15 mg/m3 |
| Czech Republic | Expoziëni limity (PEL) (mg/m3) | 0.05 mg/m3 |
| Czech Republic | Czech Republic - BEI | (Medium: urine - Time: discretionary - Parameter: 5 Aminolevulinic acid (For short term continual exposures <=30 calendar days) |
| Denmark | Grænseværdie (langvarig) (mg/m3) | 0.05 mg/m3 (dust, fume and powder) |
| Denmark | Denmark - BEI | (Medium: blood - Parameter: Lead) |
| Estonia | OEL TWA (mg/m3) | 0.1 mg/m3 (total dust)<br>0.05 mg/m3 (respirable dust) |
| Finland | HTP-arvo (8h) (mg/m3) | 0. 1 mg/m3 (all works) |
| Finland | Finland - BEI | (Medium: blood - Time: not critical - Parameter: Lead) |
| France | VME (mg/m3) | 0.1 mg/m3 (restrictive limit) |
| France | France - BEI | 400 µg/l (Medium: blood - Parameter: Lead (biological limit value, men)<br>300 µg/l (Medium: blood - Parameter: Lead (biological limit value, women)<br>200 µg/l (Medium: blood - Parameter: Lead (medical surveillance value, men)<br>100 µg/l (Medium: blood - Parameter: Lead (medical surveillance value, women) |
| Germany | TRGS 903 (BGW) | 300 µg/l (Medium: whole blood - Time: no restriction Parameter: Lead (women age below 45 years)<br>400 µg/l (Medium: whole blood - Time: no restriction Parameter: Lead (women 45 years and older) |
| Gibraltar | OEL TWA (mg/m3) | 0.15 mg/m3 |
| Gibraltar | Gibraltar - BEI | (Medium: blood - Time: no restriction - Parameter:Lead (binding biological limit value)<br>0.075 mg/m3 (Medium: air - Time: 40 hours per week Parameter: Lead (medical surveillance threshold measured in individual employees)<br>(Medium: blood - Time: no restriction - Parameter:Lead (medical surveillance threshold measured in individual employees) |

| | | |
|---|---|---|
| Greece | OEL TWA (mg/m3) | 0.15 mg/m3 |
| Hungary | AK-érték | 0.15 mg/m3 |
| Ireland | OEL (8 hours ref) (mg/m3) | 0.15 mg/m3 |
| Ireland | OEL (15 min ref) (mg/m3) | 0.45 mg/m3 (calculated) |
| Italy | OEL TWA (mg/m3) | 0.075 mg/m3 |
| Italy | Italy - BEI | (Medium: blood - Time: end of workweek (Lead remediation must be performed when uorkers of fertile age have Lead in blood levels >40 µg/100mL) |
| Latvia | OEL TWA (mg/m3) | 0.005 mg/m3 |
| Latvia | Latvia - BEI | (Medium: blood - Parameter: Lead (reference value in blood for occupationally unexposed population <=10 µg/100 mL)<br><br>(Medium: urine - Parameter: Coproporphyrin(reference value 22-57 µg/g Creatinine)<br><br>(Medium: urine - Parameter: Aminolevulinic acid (reference value 0. 5-2.5mg/g Creatinine) |
| Lithuania | IPRV (mg/m3) | 0.15 mg/m3 (inhalable fraction)<br><br>0.07 mg/m3 (respirable fraction) |
| Luxembourg | OEL TWA (mg/m3) | 0.15 mg/m3 |
| Luxembourg | Luxembourg - BEI | (Medium: blood - Parameter: Lead) 0.075 mg/m3<br><br>(Medium: blood - Parameter: Lead (medical surveillance threshold in air measured as a time weighted average over 40 hours per week)<br><br>(Medium: blood - Parameter: Lead (medical surveillance threshold measured in individual workers) |
| Poland | NDS (mg/m3) | 0.05 mg/m3 |
| Portugal | OEL TWA (mg/m3) | 0.15 mg/m3 (mandatory indicative limit value) |
| Romania | OEL TWA (mg/m3) | 0.05 mg/m3 |
| Romania | OEL STEL (mg/m3) | 0.10 mg/m3 |
| Romania | Romania - BEI | 150 µg/l (Medium: urine - Time: end of shift - Parameter: Lead)<br><br>(Medium: blood - Time: end of shift - Parameter: Lead)<br><br>(Medium: hair - Time: end of shift - Parameter: Lead) 10 mg/l (Medium: urine - Time: end of shift - Parameter: .delta.-Aminolevulinic acid)<br><br>300 µg/l (Medium: urine - Time: end of shift - Parameter: Coproporphyrin)<br><br>(Medium: blood - Time: end of shift - Parameter::Erythrocytes protoporphyrin) |
| Slovakia | NPHV (priemerna) (mg/m3) | 0.15 mg/m3 |

| | | |
|---|---|---|
| Slovakia | Slovakia - BEI | 400 µg/l (Medium: blood - Time: not critical - Parameter: Lead)<br><br>100 µg/l (Medium: blood - Time: not critical - Parameter: Lead (women younger than 45 years of age)<br><br>15 mg/l (Medium: urine - Time: not critical - Parameter: .delta.-Aminolevulinic acid)<br><br>6 mg/l (Medium: urine - Time: not critical - Parameter: .delta.-Aminolevulinic acid (women younger than 45 years of age)<br><br>0.30 mg/l (Medium: urine - Time: nct critical Parameter: Coproporphyrins) |
| Slovenia | OEL TWA (mg/m3) | 0.1 mg/m3 (inhalable fraction) |
| Slovenia | OEL STEL (mg/m3) | 0.4 mg/m3 (inhalable fraction) |
| Spain | VLA-ED (mg/m3) | 0.15 mg/m3 |
| Spain | | (Medium: blood - Time: not critical - Parameter: Lead (3,K) |
| Sweden | nivagränsvärde (NVG) (mg/m3) | 0.1 mg/m3 (total inhalable dust)<br>0.05 mg/m3 (total respirable dust) |
| United Kingdom | WEL TWA (mg/m3) | 0.15 mg/m3 |
| United Kingdom | WEL STEL (mg/m3) | 0.45 mg/m3 (calculated) |
| Norway | Grenseverdier (AN) (mg/m3) | 0.05 mg/m3 (dust and fume) |
| Norway | Grenseverdier (Korttidsverdi) (mg/m3) | 0.05 mg/m3 (dust and fume) |
| Switzerland | VME (mg/m3) | 0.1 mg/m3 (inhalable dust) |
| | | |
| Switzerland | VLE (mg/m3) | 0.8 mg/m3 (inhalable dust) |
| Switzerland | Switzerland - BEI | 400 µg/l (Medium: whole blood - Time: no restrictions Parameter: Lead (men and women over 45 years old)<br><br>100 µg/l (Medium: whole blood - Time: no restrictions Parameter: Lead (women less than 45 years old,) |
| Australia | TWA (mg/m3) | 0.15 mg/m3 (dust and fume) |
| Canada (Quebec) | VEMP (mg/m3) | 0.05 mg/m3 |
| USA - ACGIH | ACGIH TWA(mg/m3) | 0.05 mg/m3 |
| USA - IDLH | US IDLH (mg/m3 | 100 mg/m3 |
| USA - NIOSH | NIOSH REL (TWA) (mg/m3) | 0.050 mg/m3 |
| USA - OSHA | OSHA PEL (TWA) (mg/m3) | 50 µg/m3 |

| Antimony (7440-36-0) | | |
|---|---|---|
| Austria | MAK (mg/m3) | 0.5 mg/m3 (inhalable fraction) |
| Austria | MAK Short time value (mg/m3) | 5 mg/m3 (inhalable fraclion) |
| Belgium | Limit value (mg/m3) | 0.5 mg/m3 |
| Bulgaria | OEL TWA (mg/m3) | 0.5 mg/m3 |
| Croatia | GVI (granièna vrijednost izloZenosti) (mg/m3) | 0.5 mg/m3 |
| Czech Republic | Expoziëni limity (PEL) (mg/m3) | 0.5 mg/m3 |
| Denmark | Grænseværdie (langvari g) (mg/m3) | 0.5 mg/m3 (powder) |
| Estonia | OEL TWA (mg/m3) | 0.5 mg/m3 |
| Finland | HTP-arvo (8h) (mg/m3) | 0.5 mg/m3 |
| France | VME (mg/m3) | 0.5 mg/m3 |
| Greece | OEL TWA (mg/m3) | 0.5 mg/m3 |
| Hungary | AK-érték | 0.5 mg/m3 |
| Hungary | CK-érték | 2 mg/m3 |
| Ireland | OEL (8 hours ref) (mg/m3) | 0.5 mg/m3 |
| Ireland | OEL (15 min ref) (mg/m3) | 1.5 mg/m3 (calculated) |
| Latvia | OEL TWA (mg/m3) | 0.2 mg/m3 (metallic dust) |
| Lithuania | IPRV (mg/ms) | 0.5 mg/m3 |
| Netherlands | Grenswaarde TGG 8H (mg/m3) | 0.5 mg/m3 |
| Poland | NDS (mg/m3) | 0.5 mg/m3 |
| Portugal | OEL TWA (mg/m3) | 0.5 mg/m3 |
| Romania | OEL TWA (mg/m3) | 0.20 mg/m3 |
| Romania | OEL STEL (mg/m3) | 0.50 mg/m3 |
| Romania | Romania - BEI | 1 mg/l (Medium: urine - Time: end of shift - Parameter: Antimony) |
| Slovakia | NPHV (priemernâ) (mg/m3) | 0.5 mg/m3 (total dust) |
| Slovenia | OEL TWA (mg/m3) | 0.5 mg/m3 (inhalable fraction) |
| Slovenia | OEL STEL (mg/m3) | 2 mglms (inhalable fraction) |
| Spain | VLA-ED (mg/m3) | 0.5 mg/m3 |
| Sweden | nivàgränsvärde (NVG) (mg/m3) | 0.25 mg/ms (total inhalable dust) |
| United Kingdom | WEL TWA (mg/m3) | 0.5 mg/m3 |

| | | |
|---|---|---|
| United Kingdom | WEL STEL (mg/m3) | 1.5 mg/m3 (calculated) |
| Norway | Grenseverdier (AN) (mg/m3) | 0.5 mg/m3 |
| Norway | Grenseverdier (Korttidsverdi) (mg/m3) | 0.5 mg/m3 |
| Switzerland | VME (mg/m3) | 0.5 mg/m3 (inhalable dust) |
| Australia | TWA (mg/m3) | 0.5 mg/m3 |
| Canada (Quebec) | VEMP (mg/m3) | 0.5 mg/m3 |
| USA - ACGIH | ACGIH TWA (mg/m3) | 0.5 mg/m3 |
| USA - IDLH | US IDLH (mg/m3) | 50 mg/m3 |
| USA - NIOSH | NIOSH REL (TWA) (mg/m3) | 0.5 mg/m3 |
| USA - OSHA | OSHA PEL (TWA) (mg/m3) | 0.5 mg/m3 |

## 8.2 Exposure controls:

**8.2.1 Appropriate engineering controls:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**8.2.2 Individual protection measures, such as personal protective equipment:**

**Eye/face protection:** None needed under normal conditions. If battery case is damaged, use chemical goggles or face shield.

**Hand protection:** None needed under normal conditions. If battery case is damaged, use rubber or plastic acid-resistant gloves with elbow-length gauntlet.

**Body protection:** None needed under normal conditions. If battery case is damaged wear acid-resistant apron. Under severe exposure or emergency conditions, wear acid –resistant clothing and boots.

**Respiratory protection:** None required under normal conditions. When concentrations of sulfuric acid mist are known to exceed PEL, use NIOSH or MSHA-approved respiratory protection.

**Thermal hazards:** Wear suitable protective clothing to prevent heat.

**8.2.3 Environmental exposure controls:** Do not allow product to reach sewage system or any water course. Inform respective authorities in case of seepage into water course or sewage system. Do not allow to enter sewers/ surface or ground water

## 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 |
| **pH:** | Not available |
| **Melting point/range (℃):** | 326°C (CAS# 7439-92-1) |
| **Boiling point/range (℃):** | > 600°C (CAS# 7439-92-1) |
| **Flash point (℃):** | Not available |
| **Evaporation rate:** | Not available |
| **Flammability limit - lower (%):** | Not available |
| **Flammability (solid, gas):** | Non Flammable |
| **Ignition temperature (℃):** | Not available |
| **Upper/lower flammability/explosive limits:** | Not available |
| **Vapour pressure (20℃):** | 10 mm Hg |
| **Vapour density at (20°C):** | 1 |
| **Relative Density:** | 11.45 at 23.8 °C(CAS# 7439-92-1) |
| **Bulk density (kg/m$^3$):** | Not available |
| **Water solubility :** | 185 mg/L at 20°C(CAS# 7439-92-1) |
| **n-Octanol/Water (log Po/w):** | Not available |
| **Auto-ignition temperature:** | Not available |
| **Decomposition temperature:** | Not available |
| **Viscosity, dynamic (mPa.s):** | Not available |
| **Explosive properties:** | Not available |
| **Oxidising properties:** | Not available |
| **Molecular Formula:** | Not applicable |
| **Molecular Weight:** | Not applicable |

### 9.2. Other information:

| | |
|---|---|
| **Fat solubility (solvent– oil to be specified) etc:** | Not available |
| **Surface tension:** | Not available |
| **Dissociation constant in water( pKa):** | Not available |
| **Oxidation-reduction Potential:** | Not available |
| **Specific gravity:** | Not available |

## Section 10 Stability and reactivity

| | |
|---|---|
| **10.1 Reactivity:** | The substance is stable under normal storage and handling conditions. |
| **10.2 Chemical stability:** | Stable at room temperature in closed containers under normal storage and handling conditions. |
| **10.3 Possibility of hazardous reactions:** | No dangerous reactions known. |
| **10.4 Conditions to avoid:** | Incompatible materials. High temperature, Sparks and other sources of ignition. Avoid mixing acid with other chemicals. |
| **10.5 Incompatible materials:** | Potassium, carbides, sulfides, peroxides, phosphorus, sulfurs, ketone, ester, petrolatum. Reactive metals, strong bases, most organic compounds. |
| **10.6 Hazardous decomposition products:** | Sealed batteries can emit hydrogen only if over charged (float voltage> 2.41 VPC). The gas enters the air through the vent caps. To ABS: Temperatures over 300℃ (572℉) may release combustible gases. To PP: Temperatures over 380℃ (716℉) may release combustible gases. |

## Section 11 Toxicological information

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

**Acute toxicity:** **Not classified**

**Lead(CAS#7439-92-1)**

| | |
|---|---|
| LD50(Oral, Rat): | > 2 000 mg/kg bw |
| **LD50(Dermal, Rat):** | > 2 000 mg/kg bw |
| **LC50(Inhalation, Rat):** | > 5.05 mg/L,4H |
| **Skin corrosion/Irritation:** | Not classified |
| **Serious eye damage/irritation:** | Not classified |
| **Respiratory or skin sensitization:** | Not classified |
| **Germ cell mutagenicity:** | Not classified |
| **Carcinogenicity:** | Not classified |
| **Reproductive toxicity:** | Not classified |
| **STOT- single exposure:** | Not classified |
| **STOT-repeated exposure:** | Not classified |
| **Aspiration hazard:** | Not classified |

### 11.2 Information on other hazards

| | |
|---|---|
| **Endocrine disrupting properties** | The mixture does not contain endocrine disruptor. |
| **Other information** | Not applicable |

## Section 12 Ecological information

**12.1 Toxicity: Lead (CAS: 7439-92-1):**

| Acute toxicity | | Time | Species | Remarks |
|---|---|---|---|---|
| LC50 | 0,44 mg/L | 96h | Fish | Species: Cyprinus carpio [semi-static]) |
| LC50 | 1.17 mg/l | 96h | Fish | Species: Oncorhynchus mykiss [flow{hroughl) |
| EC50 | 0,6 mg/L | 48h | Daphnia | Species: water flea |

**12.2 Persistence and degradability:** Not available.

**12.3 Bioaccumulative potential:** Not available.

**12.4 Mobility in soil:** Persistant.

**12.5 Results of PBT & vPvB assessment:** The PBT and vPvB criteria of Annex XIII to the Regulation does not apply to inorganic substances

**12.6 Endocrine disrupting properties** The mixture does not contain endocrine disruptor

## Section 13 Disposal considerations

**13.1 Waste treatment methods:** Must not be disposed together with household garbage. Do not allow product to reach sewage system.Dispose of contents/container to comply with applicable local, national and international regulation. Recycling the product is recommended. Waste must be disposed of in accordance with federal, stale, and local environmental control regulations. Consult the appropriate local waste disposal expert about waste disposal. Since emptied containers retain product residue, follow label warnings even after container is emptied. Europeen waste code :16 06 01- - lead batterie

## Section 14 Transport information

| | Land transport (ADR/RID) | Inland waterways (ADN) | Sea transport (IMDG) | Air transport (ICAO/IATA) |
|---|---|---|---|---|
| **14. 1 UN number or ID number** | Not regulated | Not regulated | Not regulated | Not regulated |
| **14.2 UN Proper shipping name** | Not regulated | Not regulated | Not regulated | Not regulated |
| **14.3 Transport hazard Class(es)** | Not regulated | Not regulated | Not regulated | Not regulated |
| **14.4 Packing group** | Not regulated | Not regulated | Not regulated | Not regulated |
| **14.5 Environmental hazards** | Yes | Yes | Yes | Yes |
| **14.6 Special precautions for user** | Not regulated | Not regulated | Not regulated | Not regulated |
| **14.7 Maritime transport in bulk according to IMO instruments** | Not regulated | Not regulated | Not regulated | Not regulated |

## Section 15 Regulation information

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

Contains no substances with Annex XVII restrictions

Dry Charge Lead Battery is not on the REACH Candidate List

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

### Other National regulations:

**Germany**

| | |
|---|---|
| 12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV | : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance) |

**Netherlands**

| | |
|---|---|
| SZW-lijst van kankerverwekkende stoffen | : Sulfuric acid is listed |
| SZW-lijst van mutagene stiffen | : None of the components are listed |
| NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding | : Lead is listed |
| NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid | : Lead is listed |
| NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling | : Lead is listed |

**Denmark**

| | |
|---|---|
| Recommendations Danish Regulation | : Young people below the age of 18 years are not allowed to use the product<br>Pregnant/breastfeeding women working with the product must not be in direct contact with the product. |

### 15.2 Chemical Safety Assessment

A chemical safety assessment has been carried out for the substance or the mixture

## Section 16 Other information

### 16.1 Indication of changes:

Version 4.0 amended by (EU) 2020/878

### 16.2 Abbreviations and acronyms:

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

RID: Regulation for rail International transportation of Dangerous goods

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG: Code international maritime dangerous goods code

ICAO: International Civil Aviation Organization

IATA: International Air Transport Association

UFI: Unique Formula Identifier

LC50: median lethal concentration

EC50: The effective concentration of substance that causes 50% of the maximum response.

NOEC: No Observed Effect Concentration

DNEL: derived no-effect level

PNEC: predicted no-effect concentration

**16.3 Key literature references and sources for data**

ECHA Registered substances data

**16.4 Training instructions:**

Not applicable.

**16.5 Further information:**

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

**16.6 Notice to Reader:**

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees.

**Full text of H- and EUH-statements:**

| | |
|---|---|
| **Acute Tox. 4 (Inhalation)** | Acute toxicity (inhal.), Category 4 |
| **Acute Tox. 4 (Inhalation:dust,mist)** | Acute toxicity (inhalation:dust,mist) Category 4 |
| **Acute Tox. 4 (Inhalation:vapour)** | Acute toxicity (inhalation:vapour) Category 4 |
| **Acute Tox. 4 (Oral)** | Acute toxicity (oral), Category 4 |
| **Aquatic Acute 1** | Hazardous to the aquatic environment – Acute Hazard, Category 1 |
| **Aquatic Chronic 1** | Hazardous to the aquatic environment – Chronic Hazard, Category 1 |
| **Aquatic Chronic 3** | Hazardous to the aquatic environment – Chronic Hazard, Category 3 |
| **Carc. 2** | Carcinogenicity, Category 2 |
| **Eye Dam. 1** | Serious eye damage/eye irritation, Category 1 |
| **H302** | Harmful if swallowed. |
| **H314** | Causes severe skin burns and eye damage. |

| | |
|---|---|
| **H318** | Causes serious eye damage. |
| **H332** | Harmful if inhaled. |
| **H351** | Suspected of causing cancer. |
| **H360** | May damage fertility or the unborn child. H360D May damage the unborn child. |
| **H360FD** | May damage fertility. May damage the unborn child. |
| **H362** | May cause harm to breast-fed children. |
| **H372** | Causes damage to organs through prolonged or repeated exposure. |
| **H373** | May cause damage to organs through prolonged or repeated exposure. |
| **H400** | Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. |
| **H412** | Harmful to aquatic life with long lasting effects. |

*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*