



Valve Regulated Lead Battery

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Date of issue: 25/03/2015

Revision date: 25/03/2015

: SDS – Auto AGM

Version: 1.0

Doc Ref: QAPTEC0016

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

1.1. Product identifier

Product form : Mixture
Product name : AGM Lead-Acid Battery
Product code : AGM Series & HJ Series Batteries

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Use of the substance/mixture : Automotive Electric Storage Battery

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Yuasa Battery Sales (UK) Ltd
Unit 13, Hunts Rise, South Marston Industrial Park
SN4TG Swindon
T +44-8708-500259 - F +44-8708-500317
email: matt.jordan@yuasaeurope.com

1.4. Emergency telephone number

Emergency number : +44(0)1793833562 (09:00 – 17:00 Monday to Friday)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin Corr. 1A H314
Repr. 1A H360Fd
STOT RE 1 H372
Aquatic Acute 1 H400
Aquatic Chronic 1 H410

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Repr.Cat.1; R60
Repr.Cat.1; R61
Xn; R48/20/21
C; R35
N; R50/53

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :



Signal word (CLP) :

Danger

Hazard statements (CLP) :

H314 - Causes severe skin burns and eye damage
H360Fd - 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 statements (CLP) :

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

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P264 - Wash ... thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P273 - Avoid release to the environment

2.3. Other hazards

other hazards which do not result in classification : Lead may be toxic to blood, kidneys, central nervous system.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

| Name | Product identifier | % | Classification according to Directive 67/548/EEC |
|---------------|---|---------|--|
| Lead | (CAS No) 7439-92-1 (EC no) 231-100-4 (REACH-no) not available | 63 - 78 | Repr.Cat.1; R60 Repr.Cat.1; R61 Xn; R48/20/22 N; R50/53 |
| Sulfuric acid | (CAS No) 7664-93-9 (EC no) 231-639-5 (EC index no) 016-020-00-8 (REACH-no) not available | 10 - 30 | C; R35 |
| Antimony | (CAS No) 7440-36-0 (EC no) 231-146-5 (REACH-no) not available | 0,2 | Not classified |

| Name | Product identifier | Specific concentration limits |
|---------------|---|--|
| Sulfuric acid | (CAS No) 7664-93-9 (EC no) 231-639-5 (EC index no) 016-020-00-8 (REACH-no) not available | (5 ≤ C < 15) Xi; R36/38 (C ≥ 15) C; R35 |

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---------------|---|---------|---|
| Lead | (CAS No) 7439-92-1 (EC no) 231-100-4 (REACH-no) not available | 63 - 78 | Repr. 1A, H360 STOT RE 1, H372 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10) |
| Sulfuric acid | (CAS No) 7664-93-9 (EC no) 231-639-5 (EC index no) 016-020-00-8 (REACH-no) not available | 10 - 30 | Skin Corr. 1A, H314 |
| Antimony | (CAS No) 7440-36-0 (EC no) 231-146-5 (REACH-no) not available | 0,2 | Not classified |

| Name | Product identifier | Specific concentration limits |
|---------------|---|---|
| Sulfuric acid | (CAS No) 7664-93-9 (EC no) 231-639-5 (EC index no) 016-020-00-8 (REACH-no) not available | (5 ≤ C < 15) Eye Irrit. 2, H319 (5 ≤ C < 15) Skin Irrit. 2, H315 (C ≥ 15) Skin Corr. 1A, H314 |

Full text of R- and H-phrases: see section 16

Note: In normal usage there is no risk to people or the environment from handling and using this article. It is only in the exceptional case of an accident or severe damage that there may be minimal exposure to the constituent materials listed above.

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : If a battery ruptures, move to fresh air in case of accidental inhalation of mist. If breathing is irregular or stopped, administer artificial respiration. If breathing is difficult, give oxygen. Seek medical attention immediately.
- First-aid measures after skin contact : Rinse immediately with plenty of water for 15 minutes. Remove contaminated clothing, including shoes, after flushing has begun. If a battery ruptures, do not rub or scratch exposed skin.
- First-aid measures after eye contact : Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If battery ruptures, do not rub or scratch exposed eye.
- First-aid measures after ingestion : If solution of a battery chemicals have been swallowed and the person is conscious, give one glass of water. Do NOT induce vomiting. Vomiting may occur spontaneously. Never give anything by mouth to an unconscious person. Get immediate medical attention.

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

| | |
|--------------------------------------|--|
| Symptoms/injuries after inhalation | : If a battery ruptures, may be harmful or fatal if inhaled in a confined area. May cause severe irritation and burns of the nose, throat and respiratory tract. |
| 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 | : If a battery ruptures, direct contact with the liquid or exposure to vapours or mists may cause tearing, redness, swelling, corneal damage and irreversible eye damage. May cause severe burns. |
| Symptoms/injuries after ingestion | : Severe irritation or burns to the mouth, throat, oesophagus, and stomach. May be fatal if swallowed. |

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting 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 known. |

5.2. Special hazards arising from the substance or mixture

| | |
|------------------|--|
| Fire hazard | : Lead compounds and sulfuric acid fume may be released during a fire involving the product. Battery may rupture due to pressure buildup when exposed to excessive heat and may be result in the release of corrosive materials. |
| Explosion hazard | : May react with combustible substances creating fire or explosion hazard. Reacts violently with water. Reacts violently with oxidizing substances. Reacts with most metals to produce hydrogen gas, which can form an explosive mixture with air. |

5.3. Advice for firefighters

| | |
|---------------------------------------|--|
| Protective equipment for firefighters | : Use self-contained breathing apparatus and chemically protective clothing. |
|---------------------------------------|--|

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

| | |
|----------------------|--|
| Protective equipment | : Wear suitable protective clothing, gloves and eye/face protection. |
| Emergency procedures | : Evacuate area. |

6.1.2. For emergency responders

| | |
|----------------------|--|
| Protective equipment | : Wear suitable protective clothing, gloves and eye/face protection. |
| Emergency procedures | : Evacuate unnecessary personnel. |

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up

| | |
|-------------------------|---|
| For containment | : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. |
| Methods for cleaning up | : Small spills: collect all released material in a plastic lined metal container. . Take up liquid spill into absorbent material or Neutralize with sodium bicarbonate. Large spills: contain liquid using absorbent material, by digging trenches. Take up liquid spill into inert absorbent material, e.g.: sand/earth. Dispose in a safe manner in accordance with local/national regulations. |

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

| | |
|-----------------------------------|--|
| Additional hazards when processed | : Protect from physical damage. |
| Precautions for safe handling | : Avoid all eye and skin contact and do not breathe vapour and mist. Since emptied containers retain product residue, follow label warnings even after container is emptied. |
| Hygiene measures | : Do not eat, drink or smoke when using this product. Wash exposed skin thoroughly with soap and water after handling. |

7.2. Conditions for safe storage, including any incompatibilities

| | |
|--------------------|--|
| Technical measures | : Provide local exhaust or general room ventilation. |
|--------------------|--|

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| | |
|-----------------------|---|
| Storage conditions | : Store in a dry, cool and well-ventilated place. Keep away from heat and direct sunlight. Protect containers against damage. |
| Incompatible products | : Strong bases. Strong acids. |

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Lead (7439-92-1) | | |
|------------------|--|--|
| Austria | MAK (mg/m ³) | 0,1 mg/m ³ (inhalable fraction) |
| Austria | MAK Short time value (mg/m ³) | 0,4 mg/m ³ (inhalable fraction) |
| Bulgaria | OEL TWA (mg/m ³) | 0,05 mg/m ³ |
| Croatia | GVI (granična vrijednost izloženosti) (mg/m ³) | 0,15 mg/m ³ |
| Cyprus | OEL TWA (mg/m ³) | 0,15 mg/m ³ |
| Czech Republic | Expoziční limity (PEL) (mg/m ³) | 0,05 mg/m ³ |
| Denmark | Grænseværdie (langvarig) (mg/m ³) | 0,05 mg/m ³ (dust, fume and powder) |
| Estonia | OEL TWA (mg/m ³) | 0,1 mg/m ³ (total dust) 0,05 mg/m ³ (respirable dust) |
| Finland | HTP-arvo (8h) (mg/m ³) | 0,1 mg/m ³ (all works) |
| France | VME (mg/m ³) | 0,1 mg/m ³ (restrictive limit) |
| Germany | TRGS 903 (BGW) | 300 µg/l (Medium: whole blood - Time: no restriction - Parameter: Lead (women age below 45 years) 400 µg/l (Medium: whole blood - Time: no restriction - Parameter: Lead (women 45 years and older) |
| Gibraltar | OEL TWA (mg/m ³) | 0,15 mg/m ³ |
| Greece | OEL TWA (mg/m ³) | 0,15 mg/m ³ |
| Hungary | AK-érték | 0,15 mg/m ³ |
| Ireland | OEL (8 hours ref) (mg/m ³) | 0,15 mg/m ³ |
| Ireland | OEL (15 min ref) (mg/m ³) | 0,45 mg/m ³ (calculated) |
| Italy | OEL TWA (mg/m ³) | 0,075 mg/m ³ |
| Latvia | OEL TWA (mg/m ³) | 0,005 mg/m ³ |
| Lithuania | IPRV (mg/m ³) | 0,15 mg/m ³ (inhalable fraction) 0,07 mg/m ³ (respirable fraction) |
| Luxembourg | OEL TWA (mg/m ³) | 0,15 mg/m ³ |
| Poland | NDS (mg/m ³) | 0,05 mg/m ³ |
| Portugal | OEL TWA (mg/m ³) | 0,15 mg/m ³ (mandatory indicative limit value) |
| Romania | OEL TWA (mg/m ³) | 0,05 mg/m ³ |
| Romania | OEL STEL (mg/m ³) | 0,10 mg/m ³ |
| Slovakia | NPHV (priemerná) (mg/m ³) | 0,15 mg/m ³ |
| Slovenia | OEL TWA (mg/m ³) | 0,1 mg/m ³ (inhalable fraction) |
| Slovenia | OEL STEL (mg/m ³) | 0,4 mg/m ³ (inhalable fraction) |
| Spain | VLA-ED (mg/m ³) | 0,15 mg/m ³ |
| Sweden | nivågränsvärde (NVG) (mg/m ³) | 0,1 mg/m ³ (total inhalable dust) 0,05 mg/m ³ (total respirable dust) |
| United Kingdom | WEL TWA (mg/m ³) | 0,15 mg/m ³ |
| United Kingdom | WEL STEL (mg/m ³) | 0,45 mg/m ³ (calculated) |
| Norway | Gjennomsnittsverdier (AN) (mg/m ³) | 0,05 mg/m ³ (dust and fume) |
| Norway | Gjennomsnittsverdier (Korttidsverdi) (mg/m ³) | 0,15 mg/m ³ (dust and fume) |

| Antimony (7440-36-0) | | |
|----------------------|--|--|
| Austria | MAK (mg/m ³) | 0,5 mg/m ³ (inhalable fraction) |
| Austria | MAK Short time value (mg/m ³) | 5 mg/m ³ (inhalable fraction) |
| Belgium | Limit value (mg/m ³) | 0,5 mg/m ³ |
| Bulgaria | OEL TWA (mg/m ³) | 0,5 mg/m ³ |
| Croatia | GVI (granična vrijednost izloženosti) (mg/m ³) | 0,5 mg/m ³ |
| Czech Republic | Expoziční limity (PEL) (mg/m ³) | 0,5 mg/m ³ |

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| Antimony (7440-36-0) | | |
|-----------------------------|---|---|
| Denmark | Grænseværdie (langvarig) (mg/m ³) | 0,5 mg/m ³ (powder) |
| Estonia | OEL TWA (mg/m ³) | 0,5 mg/m ³ |
| Finland | HTP-arvo (8h) (mg/m ³) | 0,5 mg/m ³ |
| France | VME (mg/m ³) | 0,5 mg/m ³ |
| Greece | OEL TWA (mg/m ³) | 0,5 mg/m ³ |
| Hungary | AK-érték | 0,5 mg/m ³ |
| Hungary | CK-érték | 2 mg/m ³ |
| Ireland | OEL (8 hours ref) (mg/m ³) | 0,5 mg/m ³ |
| Ireland | OEL (15 min ref) (mg/m ³) | 1,5 mg/m ³ (calculated) |
| Latvia | OEL TWA (mg/m ³) | 0,2 mg/m ³ (metallic dust) |
| Lithuania | IPRV (mg/m ³) | 0,5 mg/m ³ |
| Netherlands | Grenswaarde TGG 8H (mg/m ³) | 0,5 mg/m ³ |
| Poland | NDS (mg/m ³) | 0,5 mg/m ³ |
| Portugal | OEL TWA (mg/m ³) | 0,5 mg/m ³ |
| Romania | OEL TWA (mg/m ³) | 0,20 mg/m ³ |
| Romania | OEL STEL (mg/m ³) | 0,50 mg/m ³ |
| Slovakia | NPHV (priemerná) (mg/m ³) | 0,5 mg/m ³ (total dust) |
| Slovenia | OEL TWA (mg/m ³) | 0,5 mg/m ³ (inhalable fraction) |
| Slovenia | OEL STEL (mg/m ³) | 2 mg/m ³ (inhalable fraction) |
| Spain | VLA-ED (mg/m ³) | 0,5 mg/m ³ |
| Sweden | nivågränsvärde (NVG) (mg/m ³) | 0,25 mg/m ³ (total inhalable dust) |
| United Kingdom | WEL TWA (mg/m ³) | 0,5 mg/m ³ |
| United Kingdom | WEL STEL (mg/m ³) | 1,5 mg/m ³ (calculated) |
| Norway | Gjennomsnittsverdier (AN) (mg/m ³) | 0,5 mg/m ³ |
| Norway | Gjennomsnittsverdier (Korttidsverdi) (mg/m ³) | 1,5 mg/m ³ |

| Sulfuric acid (7664-93-9) | | |
|----------------------------------|---|---|
| EU | IOELV TWA (mg/m ³) | 0,05 mg/m ³ (taking into account potential limitations and interferences which take place in the presence of other Sulphur compounds-mist) |
| Austria | MAK (mg/m ³) | 0,1 mg/m ³ (corresponds to 0.05 mg/m ³ Thoracic-inhalable fraction) |
| Austria | MAK Short time value (mg/m ³) | 0,2 mg/m ³ (inhalable fraction) |
| Belgium | Limit value (mg/m ³) | 0,2 mg/m ³ |
| Bulgaria | OEL TWA (mg/m ³) | 0,05 mg/m ³ (When choosing a suitable method for monitoring exposure should take into account potential constraints and interactions that may occur in the presence of other sulfur compounds-respirable aerosol) |
| Croatia | GVI (granična vrijednost izloženosti) (mg/m ³) | 0,05 mg/m ³ |
| Cyprus | OEL TWA (mg/m ³) | 0,05 mg/m ³ (vapor) |
| Czech Republic | Expoziční limity (PEL) (mg/m ³) | 1 mg/m ³ 0,05 mg/m ³ (concentrated-mist) |
| Denmark | Grænseværdie (langvarig) (mg/m ³) | 0,05 mg/m ³ (thoracic fraction-mist) |
| Estonia | OEL TWA (mg/m ³) | 1 mg/m ³ (fume) |
| Finland | HTP-arvo (8h) (mg/m ³) | 0,05 mg/m ³ |
| Finland | HTP-arvo (15 min) | 0,1 mg/m ³ |
| France | VME (mg/m ³) | 0,05 mg/m ³ (thoracic fraction) |
| France | VLE (mg/m ³) | 3 mg/m ³ |
| Germany | TRGS 900 Occupational exposure limit value (mg/m ³) | 0,1 mg/m ³ (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed-inhalable fraction) |
| Gibraltar | OEL TWA (mg/m ³) | 0,05 mg/m ³ (when selecting an appropriate exposure monitoring method, account should be taken of potential limitations and interferences that may arise in the presence of other sulphur compounds-thoracic fraction) |

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| Sulfuric acid (7664-93-9) | | |
|---------------------------|---|---|
| Greece | OEL TWA (mg/m ³) | 0,05 mg/m ³ (mist) |
| Hungary | AK-érték | 0,05 mg/m ³ |
| Ireland | OEL (8 hours ref) (ppm) | 0,05 ppm |
| Ireland | OEL (15 min ref) (ppm) | 0,15 ppm (calculated) |
| Italy | OEL TWA (mg/m ³) | 0,05 mg/m ³ (When choosing a suitable method for monitoring exposure should take into account potential constraints and interactions that may occur in the presence of other sulfur compounds, respirable fraction-thoracic fraction, mist) |
| Latvia | OEL TWA (mg/m ³) | 0,05 mg/m ³ (choosing an appropriate exposure monitoring method, there should be taken into account the possible limitations and the impact that may result from the presence of other sulfur components-fog, which is defined as the thoracic fraction) |
| Lithuania | IPRV (mg/m ³) | 0,05 mg/m ³ (vapor) |
| Lithuania | TPRV (mg/m ³) | 3 mg/m ³ (fog-vapor) |
| Luxembourg | OEL TWA (mg/m ³) | 0,05 mg/m ³ |
| Malta | OEL TWA (mg/m ³) | 0,05 mg/m ³ (mist) |
| Netherlands | Grenswaarde TGG 8H (mg/m ³) | 0,05 mg/m ³ (defined as thoracic fraction-mist) |
| Poland | NDS (mg/m ³) | 0,05 mg/m ³ (thoracic fraction) |
| Portugal | OEL TWA (mg/m ³) | 0,05 mg/m ³ (thoracic fraction-mist) |
| Romania | OEL TWA (mg/m ³) | 0,05 mg/m ³ |
| Slovakia | NPHV (priemerná) (mg/m ³) | 0,1 mg/m ³ |
| Slovenia | OEL TWA (mg/m ³) | 0,05 mg/m ³ (inhalable fraction, fog) |
| Spain | VLA-ED (mg/m ³) | 0,05 mg/m ³ (indicative limit value; it is prohibited the partial or complete commercialization or use of this substance as a phytosanitary or biocide compound; limitations and interferences can arise from other Sulfur compounds-mist) |
| Sweden | nivågränsvärde (NVG) (mg/m ³) | 0,1 mg/m ³ |
| Sweden | kortidsvärde (KTV) (mg/m ³) | 0,2 mg/m ³ |
| United Kingdom | WEL TWA (mg/m ³) | 0,05 mg/m ³ (mist) |
| Norway | Gjennomsnittsverdier (AN) (mg/m ³) | 0,1 mg/m ³ (inhalable fraction) |
| Norway | Gjennomsnittsverdier (Korttidsverdi) (mg/m ³) | 0,3 mg/m ³ (inhalable fraction) |

8.2. Exposure controls

| | |
|----------------------------------|---|
| Appropriate engineering controls | : Mechanical ventilation is recommended. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. |
| Personal protective equipment | : Safety glasses. Gloves. Insufficient ventilation: wear respiratory protection. |
| Hand protection | : Wear suitable gloves tested to EN374. |
| Eye protection | : Chemical goggles or face shield with safety glasses. DIN EN 166 |
| Skin and body protection | : Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of soap and water. |
| Respiratory protection | : In case of insufficient ventilation, wear suitable respiratory equipment. Wear a respirator conforming to EN140 with Type A/P2 filter or better. |



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|-----------------|-----------------------|
| Physical state | : Solid |
| Colour | : Electrolyte. Clear. |
| Odour | : No data available |
| Odour threshold | : No data available |

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| | |
|---|-------------------------------------|
| pH | : No data available |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Melting point | : No data available |
| Freezing point | : No data available |
| Boiling point | : 95 - 95,5 °C |
| Flash point | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : No data available |
| Vapour pressure | : 10 mm Hg |
| Relative vapour density at 20 °C | : 1 |
| Relative density | : No data available |
| Solubility | : Soluble in water. Water: 100 % |
| Log Pow | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Explosive limits | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

Stable at normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Overcharging. Remove all sources of ignition. If battery ruptures, avoid contact with organic materials and alkaline materials. Mechanical impact.

10.5. Incompatible materials

If battery ruptures, avoid contact with organic materials and alkaline materials. metals. Water . Oxidizing agents, strong. Strong reducing agents. potassium nitrate. potassium permanganate. Peroxides.

10.6. Hazardous decomposition products

Lead compounds and sulfuric acid fumes may be released during a fire involving the product.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

| Sulfuric acid (7664-93-9) | |
|----------------------------|--|
| LD50 oral rat | 2140 mg/kg |
| LC50 inhalation rat (mg/l) | 510 mg/m ³ (Exposure time: 2 h) |

| | |
|--|---|
| Skin corrosion/irritation | : Causes severe skin burns and eye damage. |
| Serious eye damage/irritation | : Serious eye damage, category 1, implicit |
| Respiratory or skin sensitisation | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : May damage fertility. Suspected of damaging the unborn child. |
| Specific target organ toxicity (single exposure) | : Not classified |
| Specific target organ toxicity (repeated exposure) | : Causes damage to organs through prolonged or repeated exposure. |
| Aspiration hazard | : Not classified |

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SECTION 12: Ecological information

12.1. Toxicity

| Lead (7439-92-1) | |
|------------------|---|
| LC50 fish 1 | 0,44 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [semi-static]) |
| EC50 Daphnia 1 | 600 µg/l (Exposure time: 48 h - Species: water flea) |
| LC50 fish 2 | 1,17 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through]) |

| Sulfuric acid (7664-93-9) | |
|---------------------------|---|
| LC50 fish 1 | 82 mg/l (Exposure time: 24 h - Species: Brachydanio rerio [static]) |

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

| Sulfuric acid (7664-93-9) | |
|---------------------------|----------------------|
| BCF fish 1 | (no bioaccumulation) |

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

| | |
|-----------------------------------|---|
| Regional legislation (waste) | : Dispose of contents/container to comply with applicable local, national and international regulations. |
| Waste treatment methods | : Recycling the product is recommended. Waste must be disposed of in accordance with federal, state, and local environmental control regulations. |
| Waste disposal recommendations | : Consult the appropriate local waste disposal expert about waste disposal. . Since emptied containers retain product residue, follow label warnings even after container is emptied. |
| European List of Waste (LoW) code | : 16 06 01* - lead batteries |

SECTION 14: Transport information

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

14.1. UN number

UN-No. (All modes) : 2800

14.2. UN proper shipping name

Proper Shipping Name : BATTERIES, WET, NON-SPILLABLE
Transport document description (ADR) : UN 2800 BATTERIES, WET, NON-SPILLABLE, 8, (E),

14.3. Transport hazard class(es)

All modes

Transport hazard class(es) : 8
Danger labels : 8



14.4. Packing group

Packing group : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

Valve Regulated Lead Battery

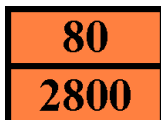
Safety Data Sheet

according to Regulation (EC) No. 453/2010

14.6. Special precautions for user

14.6.1. Overland transport

| | |
|---|-----------------|
| Classification code (ADR) | : C11 |
| Special provisions (ADR) | : 238, 295, 598 |
| Limited quantities (ADR) | : 1L |
| Excepted quantities (ADR) | : E0 |
| Transport category (ADR) | : 3 |
| Hazard identification number (Kemler No.) | : 80 |
| Orange plates | : |



| | |
|-------------------------------|------|
| Tunnel restriction code (ADR) | : E |
| EAC code | : 2R |

14.6.2. Transport by sea

| | |
|------------------------------------|---|
| Special provisions (IMDG) | : 29, 238 |
| Limited quantities (IMDG) | : 1L |
| Excepted quantities (IMDG) | : E0 |
| EmS-No. (Fire) | : F-A |
| EmS-No. (Spillage) | : S-B |
| Properties and observations (IMDG) | : Metal plates immersed in gelled alkaline or acid electrolyte in a glass, hard rubber or plastics receptacle of a non-spillable type. When electrically charged, may cause fire through short-circuiting of terminals. Cause burns to skin, eyes and mucous membranes. |

14.6.3. Air transport

| | |
|---------------------------------|------------------------|
| PCA Excepted quantities (IATA) | : E0 |
| PCA Limited quantities (IATA) | : Not applicable |
| PCA packing instructions (IATA) | : 872 |
| CAO packing instructions (IATA) | : 872 |
| Special provisions (IATA) | : A48, A67, A164, A183 |

14.6.4. Inland waterway transport

| | |
|---------------------------|-----------------|
| Special provision (RID) | : 238, 295, 598 |
| Limited quantities (RID) | : 1L |
| Excepted quantities (RID) | : E0 |
| | : |

14.6.5. Rail transport

| | |
|---------------------------|-----------------|
| Special provision (RID) | : 238, 295, 598 |
| Limited quantities (RID) | : 1L |
| Excepted quantities (RID) | : E0 |
| | : |

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no substances with Annex XVII restrictions
Valve Regulated Lead Battery is not on the REACH Candidate List
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany

Water hazard class (WGK) : 2 - hazard to waters

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according to Regulation (EC) No. 453/2010

15.2. Chemical safety assessment

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

SECTION 16: Other information

Full text of R-, H- and EUH-phrases:

| | |
|-------------------|---|
| Aquatic Acute 1 | Hazardous to the aquatic environment — Acute Hazard, Category 1 |
| Aquatic Chronic 1 | Hazardous to the aquatic environment — Chronic Hazard, Category 1 |
| Repr. 1A | Reproductive toxicity, Category 1A |
| Repr. 1A | Reproductive toxicity, Category 1A |
| Skin Corr. 1A | Skin corrosion/irritation Category 1A |
| STOT RE 1 | Specific target organ toxicity (repeated exposure) Category 1 |
| H314 | Causes severe skin burns and eye damage |
| H360 | May damage fertility or the unborn child |
| H360Fd | May damage fertility. Suspected of damaging the unborn child |
| H372 | Causes damage to organs through prolonged or repeated exposure |
| H400 | Very toxic to aquatic life |
| H410 | Very toxic to aquatic life with long lasting effects |
| R35 | Causes severe burns |
| R48/20/21 | Harmful: danger of serious damage to health by prolonged exposure through inhalation and in contact with skin |
| R48/20/22 | Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed |
| R50/53 | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment |
| R60 | May impair fertility |
| R61 | May cause harm to the unborn child |
| C | Corrosive |
| N | Dangerous for the environment |
| Xn | Harmful |

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