

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : High Performance MF & VRLA MF Valve Regulated Lead Battery

#### 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 : Electric Storage Battery (Power sport)

##### 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) :



GHS05

GHS08

GHS09

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  
P264 - Wash ... thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product

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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.
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## 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.
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#### 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 <sup>3</sup> )	0,1 mg/m <sup>3</sup> (inhalable fraction)
Austria	MAK Short time value (mg/m <sup>3</sup> )	0,4 mg/m <sup>3</sup> (inhalable fraction)
Bulgaria	OEL TWA (mg/m <sup>3</sup> )	0,05 mg/m <sup>3</sup>
Croatia	GVI (granična vrijednost izloženosti) (mg/m <sup>3</sup> )	0,15 mg/m <sup>3</sup>
Cyprus	OEL TWA (mg/m <sup>3</sup> )	0,15 mg/m <sup>3</sup>
Czech Republic	Expoziční limity (PEL) (mg/m <sup>3</sup> )	0,05 mg/m <sup>3</sup>
Denmark	Grænseværdie (langvarig) (mg/m <sup>3</sup> )	0,05 mg/m <sup>3</sup> (dust, fume and powder)
Estonia	OEL TWA (mg/m <sup>3</sup> )	0,1 mg/m <sup>3</sup> (total dust) 0,05 mg/m <sup>3</sup> (respirable dust)
Finland	HTP-arvo (8h) (mg/m <sup>3</sup> )	0,1 mg/m <sup>3</sup> (all works)
France	VME (mg/m <sup>3</sup> )	0,1 mg/m <sup>3</sup> (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 <sup>3</sup> )	0,15 mg/m <sup>3</sup>
Greece	OEL TWA (mg/m <sup>3</sup> )	0,15 mg/m <sup>3</sup>
Hungary	AK-érték	0,15 mg/m <sup>3</sup>
Ireland	OEL (8 hours ref) (mg/m <sup>3</sup> )	0,15 mg/m <sup>3</sup>
Ireland	OEL (15 min ref) (mg/m <sup>3</sup> )	0,45 mg/m <sup>3</sup> (calculated)
Italy	OEL TWA (mg/m <sup>3</sup> )	0,075 mg/m <sup>3</sup>
Latvia	OEL TWA (mg/m <sup>3</sup> )	0,005 mg/m <sup>3</sup>
Lithuania	IPRV (mg/m <sup>3</sup> )	0,15 mg/m <sup>3</sup> (inhalable fraction) 0,07 mg/m <sup>3</sup> (respirable fraction)
Luxembourg	OEL TWA (mg/m <sup>3</sup> )	0,15 mg/m <sup>3</sup>
Poland	NDS (mg/m <sup>3</sup> )	0,05 mg/m <sup>3</sup>
Portugal	OEL TWA (mg/m <sup>3</sup> )	0,15 mg/m <sup>3</sup> (mandatory indicative limit value)
Romania	OEL TWA (mg/m <sup>3</sup> )	0,05 mg/m <sup>3</sup>
Romania	OEL STEL (mg/m <sup>3</sup> )	0,10 mg/m <sup>3</sup>
Slovakia	NPHV (priemerná) (mg/m <sup>3</sup> )	0,15 mg/m <sup>3</sup>
Slovenia	OEL TWA (mg/m <sup>3</sup> )	0,1 mg/m <sup>3</sup> (inhalable fraction)
Slovenia	OEL STEL (mg/m <sup>3</sup> )	0,4 mg/m <sup>3</sup> (inhalable fraction)
Spain	VLA-ED (mg/m <sup>3</sup> )	0,15 mg/m <sup>3</sup>
Sweden	nivågränsvärde (NVG) (mg/m <sup>3</sup> )	0,1 mg/m <sup>3</sup> (total inhalable dust) 0,05 mg/m <sup>3</sup> (total respirable dust)
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	0,15 mg/m <sup>3</sup>
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	0,45 mg/m <sup>3</sup> (calculated)
Norway	Gjennomsnittsverdier (AN) (mg/m <sup>3</sup> )	0,05 mg/m <sup>3</sup> (dust and fume)
Norway	Gjennomsnittsverdier (Korttidsverdi) (mg/m <sup>3</sup> )	0,15 mg/m <sup>3</sup> (dust and fume)

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

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

<b>Sulfuric acid (7664-93-9)</b>		
EU	IOELV TWA (mg/m <sup>3</sup> )	0,05 mg/m <sup>3</sup> (taking into account potential limitations and interferences which take place in the presence of other Sulphur compounds-mist)
Austria	MAK (mg/m <sup>3</sup> )	0,1 mg/m <sup>3</sup> (corresponds to 0.05 mg/m <sup>3</sup> Thoracic-inhalable fraction)
Austria	MAK Short time value (mg/m <sup>3</sup> )	0,2 mg/m <sup>3</sup> (inhalable fraction)
Belgium	Limit value (mg/m <sup>3</sup> )	0,2 mg/m <sup>3</sup>
Bulgaria	OEL TWA (mg/m <sup>3</sup> )	0,05 mg/m <sup>3</sup> (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 <sup>3</sup> )	0,05 mg/m <sup>3</sup>
Cyprus	OEL TWA (mg/m <sup>3</sup> )	0,05 mg/m <sup>3</sup> (vapor)
Czech Republic	Expoziční limity (PEL) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> 0,05 mg/m <sup>3</sup> (concentrated-mist)
Denmark	Grænseværdie (langvarig) (mg/m <sup>3</sup> )	0,05 mg/m <sup>3</sup> (thoracic fraction-mist)
Estonia	OEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (fume)
Finland	HTP-arvo (8h) (mg/m <sup>3</sup> )	0,05 mg/m <sup>3</sup>
Finland	HTP-arvo (15 min)	0,1 mg/m <sup>3</sup>
France	VME (mg/m <sup>3</sup> )	0,05 mg/m <sup>3</sup> (thoracic fraction)
France	VLE (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
Germany	TRGS 900 Occupational exposure limit value (mg/m <sup>3</sup> )	0,1 mg/m <sup>3</sup> (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 <sup>3</sup> )	0,05 mg/m <sup>3</sup> (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 <sup>3</sup> )	0,05 mg/m <sup>3</sup> (mist)
Hungary	AK-érték	0,05 mg/m <sup>3</sup>
Ireland	OEL (8 hours ref) (ppm)	0,05 ppm
Ireland	OEL (15 min ref) (ppm)	0,15 ppm (calculated)
Italy	OEL TWA (mg/m <sup>3</sup> )	0,05 mg/m <sup>3</sup> (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 <sup>3</sup> )	0,05 mg/m <sup>3</sup> (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 <sup>3</sup> )	0,05 mg/m <sup>3</sup> (vapor)
Lithuania	TPRV (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup> (fog-vapor)
Luxembourg	OEL TWA (mg/m <sup>3</sup> )	0,05 mg/m <sup>3</sup>
Malta	OEL TWA (mg/m <sup>3</sup> )	0,05 mg/m <sup>3</sup> (mist)
Netherlands	Grenswaarde TGG 8H (mg/m <sup>3</sup> )	0,05 mg/m <sup>3</sup> (defined as thoracic fraction-mist)
Poland	NDS (mg/m <sup>3</sup> )	0,05 mg/m <sup>3</sup> (thoracic fraction)
Portugal	OEL TWA (mg/m <sup>3</sup> )	0,05 mg/m <sup>3</sup> (thoracic fraction-mist)
Romania	OEL TWA (mg/m <sup>3</sup> )	0,05 mg/m <sup>3</sup>
Slovakia	NPHV (priemerná) (mg/m <sup>3</sup> )	0,1 mg/m <sup>3</sup>
Slovenia	OEL TWA (mg/m <sup>3</sup> )	0,05 mg/m <sup>3</sup> (inhalable fraction, fog)
Spain	VLA-ED (mg/m <sup>3</sup> )	0,05 mg/m <sup>3</sup> (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 <sup>3</sup> )	0,1 mg/m <sup>3</sup>
Sweden	kortidsvärde (KTV) (mg/m <sup>3</sup> )	0,2 mg/m <sup>3</sup>
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	0,05 mg/m <sup>3</sup> (mist)
Norway	Gjennomsnittsverdier (AN) (mg/m <sup>3</sup> )	0,1 mg/m <sup>3</sup> (inhalable fraction)
Norway	Gjennomsnittsverdier (Korttidsverdi) (mg/m <sup>3</sup> )	0,3 mg/m <sup>3</sup> (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 <sup>3</sup> (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

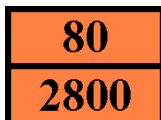
## Safety Data Sheet

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

# Valve Regulated Lead Battery

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### 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*