GS YUASA	**Valve Regulated Lead Battery (AGM) Safety Data Sheet** **according to Regulation (EU) 2015/830**	Document:	SDS 10
		Issue No:	1
		Issue Date:	19-03-2018

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

1.1. Product identifier

Product form : Article

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 article : Motorcycle & power sport electric storage/starter battery

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier: **GS Yuasa Battery Europe Ltd**
Address: Unit 22, Rassau Industrial Estate,
Ebbw Vale, NP23 5SD
United Kingdom

National Contacts

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Language: Italian & English

UK:
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Tel: (+44) 01793-833-562
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Language: English language only

1.4. Emergency telephone number

Emergency number : +44(0)1793833562 (09:00– 17:00 Mon to Fri)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]Mixture/Substance: SDS EU 2015: According to Regulation (EU) 2015/830 (REACH Annex II)

Skin corrosion/irritation Category 1A	H314
Reproductive toxicity, Category 1A	H360Fd
Specific target organ toxicity (repeated exposure) Category 1	H372
Hazardous to the aquatic environment — Acute Hazard, Category 1	H400
Hazardous to the aquatic environment — Chronic Hazard, Category 1	H410

Full text of H statements : see section 16

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.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP] Extra labelling to displayExtra classification(s) to display

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
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 Regulation (EC) No. 1272/2008 [CLP]
Lead	(CAS No) 7439-92-1 (EC no) 231-100-4 (REACH-no) not available	< 100	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	< 100	Skin Corr. 1A, H314
Antimony	(CAS No) 7440-36-0 (EC no) 231-146-5 (REACH-no) not available	0.2	Not classified

Specific concentration limits:

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 H-statements: see section 16

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 scratchexposed 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.

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 materila, 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.

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)		
EU	European BEI	(Medium: blood - Time: no restriction - Parameter: Lead (binding biological limit value) 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) (Medium: blood - Time: no restriction - Parameter: Lead (medical surveillance threshold measured in individual workers)
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 fixed - Parameter: Lead (for women under 45 years old) 400 µg/l (Medium: blood - Time: not fixed - Parameter: Lead)
Croatia	GVI (granična vrijednost izloženosti) (mg/m³)	0.15 mg/m³
Croatia	Croatia - BEI	(Medium: blood - Time: not critical - Parameter: Lead (Medical surveillance should be carried out when the limit value of Lead in blood of workers >40 µg/100mL blood) (Medium: urine - Time: single sample or urine collected over 24 hours - Parameter: Lead (For all results that are expressed on Creatinine, Creatinine concentration <0.5 g/L and >3.0 g/L should not be considered) (Medium: blood - Time: not critical - Parameter: .delta.-Aminolevulinic acid dehydratase) (Medium: blood - Time: after exposure during 2-3 months (light protected sample) - Parameter: Protoporphyrin in erythrocytes (Interference of Iron deficiency (anemia sideropenic))
Cyprus	OEL TWA (mg/m³)	0.15 mg/m³
Czech Republic	Expoziční 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) (Medium: urine - Time: discretionary - Parameter: Coproporphyrin (For short term continual exposures <=30 calendar days) (Medium: urine - Time: discretionary - Parameter: 5-Aminolevulinic acid (For short term continual exposures <=30 calendar days) (Medium: urine - Time: discretionary - Parameter: Coproporphyrin (For short term continual exposures <=30 calendar days) 0.4 mg/l (Medium: blood - Time: discretionary - Parameter: Lead)

Lead (7439-92-1)		
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) 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) 300 µg/l (Medium: blood - Parameter: Lead (biological limit value, women) 200 µg/l (Medium: blood - Parameter: Lead (medical surveillance value, men) 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) 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) 0.075 mg/m³ (Medium: air - Time: 40 hours per week - Parameter: Lead (medical surveillance threshold measured in individual employees) (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 workers 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) (Medium: urine - Parameter: Coproporphyrin (reference value 22-57µg/g Creatinine) (Medium: urine - Parameter: Aminolevulinic acid (reference value 0.5-2.5mg/g Creatinine)
Lithuania	IPRV (mg/m³)	0.15 mg/m³ (inhalable fraction) 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 (Medium: blood - Parameter: Lead (medical surveillance threshold in air measured as a time weighted average over 40 hours per week) (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

Lead (7439-92-1)		
Romania	Romania - BEI	150 µg/l (Medium: urine - Time: end of shift - Parameter: Lead) (Medium: blood - Time: end of shift - Parameter: Lead) (Medium: hair - Time: end of shift - Parameter: Lead) 10 mg/l (Medium: urine - Time: end of shift - Parameter: .delta.-Aminolevulinic acid) 300 µg/l (Medium: urine - Time: end of shift - Parameter: Coproporphyrin) (Medium: blood - Time: end of shift - Parameter: Erythrocytes protoporphyrin)
Slovakia	NPHV (priemerná) (mg/m³)	0.15 mg/m³
Slovakia	Slovakia - BEI	400 µg/l (Medium: blood - Time: not critical - Parameter: Lead) 100 µg/l (Medium: blood - Time: not critical - Parameter: Lead (women younger than 45 years of age) 15 mg/l (Medium: urine - Time: not critical - Parameter: .delta.-Aminolevulinic acid) 6 mg/l (Medium: urine - Time: not critical - Parameter: .delta.-Aminolevulinic acid (women younger than 45 years of age) 0.30 mg/l (Medium: urine - Time: not 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	nivågränsvärde (NVG) (mg/m³)	0.1 mg/m³ (total inhalable dust) 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, X) 100 µg/l (Medium: whole blood - Time: no restrictions - Parameter: Lead (women less than 45 years old, X)
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 fraction)
Belgium	Limit value (mg/m³)	0.5 mg/m³
Bulgaria	OEL TWA (mg/m³)	0.5 mg/m³
Croatia	GVI (granična vrijednost izloženosti) (mg/m³)	0.5 mg/m³
Czech Republic	Expoziční limity (PEL) (mg/m³)	0.5 mg/m³
Denmark	Grænseværdie (langvarig) (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

Antimony (7440-36-0)		
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/m³)	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 (priemerná) (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 mg/m³ (inhalable fraction)
Spain	VLA-ED (mg/m³)	0.5 mg/m³
Sweden	nivågränsvärde (NVG) (mg/m³)	0.25 mg/m³ (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

Sulfuric acid (7664-93-9)		
EU	IOELV TWA (mg/m³)	0.05 mg/m³ (taking into account potential limitations and interferences which take place in the presence of other Sulphur compounds-mist)
Austria	MAK (mg/m³)	0.1 mg/m³ (corresponds to 0.05 mg/m3 Thoracic-inhalable fraction)
Austria	MAK Short time value (mg/m³)	0.2 mg/m³ (inhalable fraction)
Belgium	Limit value (mg/m³)	0.2 mg/m³
Bulgaria	OEL TWA (mg/m³)	0.05 mg/m³ (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/m³)	0.05 mg/m³
Cyprus	OEL TWA (mg/m³)	0.05 mg/m³ (vapor)
Czech Republic	Expoziční limity (PEL) (mg/m³)	1 mg/m³ 0.05 mg/m³ (concentrated-mist)
Denmark	Grænseværdie (langvarig) (mg/m³)	0.05 mg/m³ (thoracic fraction-mist)
Estonia	OEL TWA (mg/m³)	1 mg/m³ (fume)
Finland	HTP-arvo (8h) (mg/m³)	0.05 mg/m³
Finland	HTP-arvo (15 min)	0.1 mg/m³
France	VME (mg/m³)	0.05 mg/m³ (thoracic fraction)
France	VLE (mg/m³)	3 mg/m³
Germany	TRGS 900 Occupational exposure limit value (mg/m³)	0.1 mg/m³ (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed-inhalable fraction)

Sulfuric acid (7664-93-9)		
Gibraltar	OEL TWA (mg/m³)	0.05 mg/m³ (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)
Greece	OEL TWA (mg/m³)	0.05 mg/m³ (mist)
Hungary	AK-érték	0.05 mg/m³
Ireland	OEL (8 hours ref) (ppm)	0.05 ppm
Ireland	OEL (15 min ref) (ppm)	0.15 ppm (calculated)
Italy	OEL TWA (mg/m³)	0.05 mg/m³ (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/m³)	0.05 mg/m³ (possible limitations and the impact that may result from the presence of other Sulfur components should be taken into account when choosing an appropriate exposure monitoring method-fog, which is defined as the thoracic fraction)
Lithuania	IPRV (mg/m³)	0.05 mg/m³ (vapor)
Lithuania	TPRV (mg/m³)	3 mg/m³ (fog-vapor)
Luxembourg	OEL TWA (mg/m³)	0.05 mg/m³
Malta	OEL TWA (mg/m³)	0.05 mg/m³ (mist)
Netherlands	Grenswaarde TGG 8H (mg/m³)	0.05 mg/m³ (defined as thoracic fraction-mist)
Poland	NDS (mg/m³)	0.05 mg/m³ (thoracic fraction)
Portugal	OEL TWA (mg/m³)	0.05 mg/m³ (thoracic fraction-mist)
Romania	OEL TWA (mg/m³)	0.05 mg/m³
Slovakia	NPHV (priemerná) (mg/m³)	0.1 mg/m³
Slovenia	OEL TWA (mg/m³)	0.05 mg/m³ (inhalable fraction, fog)
Spain	VLA-ED (mg/m³)	0.05 mg/m³ (indicative limit value-mist)
Sweden	nivågränsvärde (NVG) (mg/m³)	0.1 mg/m³
Sweden	kortidsvärde (KTV) (mg/m³)	0.2 mg/m³
United Kingdom	WEL TWA (mg/m³)	0.05 mg/m³ (mist)
Norway	Grenseverdier (AN) (mg/m³)	0.1 mg/m³ (inhalable fraction)
Norway	Grenseverdier (Korttidsverdi) (mg/m3)	0.1 mg/m³ (inhalable fraction)
Switzerland	VME (mg/m³)	0.1 mg/m³ (inhalable dust)
Switzerland	VLE (mg/m³)	0.1 mg/m³ (inhalable dust)
Australia	TWA (mg/m³)	1 mg/m³
Australia	STEL (mg/m³)	3 mg/m³
Canada (Quebec)	VECD (mg/m³)	3 mg/m³
Canada (Quebec)	VEMP (mg/m³)	1 mg/m³
USA - ACGIH	ACGIH TWA (mg/m³)	0.2 mg/m³ (thoracic fraction)
USA - IDLH	US IDLH (mg/m³)	15 mg/m³
USA - NIOSH	NIOSH REL (TWA) (mg/m³)	1 mg/m³
USA - OSHA	OSHA PEL (TWA) (mg/m³)	1 mg/m³

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
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 - 95.555 °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

Antimony (7440-36-0)	
LD50 oral rat	7 g/kg

Sulfuric acid (7664-93-9)	
LD50 oral rat	2140 mg/kg
LC50 inhalation rat (mg/l)	510 mg/m³ (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

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])
LC50 fish 2	1.17 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])
EC50 Daphnia 1	600 µg/l (Exposure time: 48 h - Species: water flea)
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. (ADR)	:	2800
UN-No. (IMDG)	:	2800
UN-No. (IATA)	:	2800
UN-No. (ADN)	:	Not applicable
UN-No. (RID)	:	Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR)	:	BATTERIES, WET, NON-SPILLABLE
Proper Shipping Name (IMDG)	:	BATTERIES, WET, NON-SPILLABLE
Proper Shipping Name (IATA)	:	Batteries, wet, non-spillable
Proper Shipping Name (ADN)	:	Not applicable
Proper Shipping Name (RID)	:	Not applicable
Transport document description	:	UN 2800 BATTERIES, WET, NON-SPILLABLE, 8, (E), ENVIRONMENTALLY HAZARDOUS
Transport document description (IMDG)	:	UN 2800 BATTERIES, WET, NON-SPILLABLE, 8, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS

14.3. Transport hazard class(es)

ADR

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

IMDG

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

IATA

Transport hazard class(es) (IATA)	:	8
Hazard labels (IATA)	:	8

RID

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

14.4. Packing group

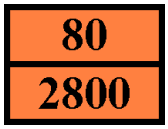
Packing group (ADR)	:	Not applicable
Packing group (IMDG)	:	Not applicable
Packing group (IATA)	:	Not applicable
Packing group (RID)	:	Not applicable

14.5. Environmental hazards

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

14.6. Special precautions for user

- Overland transport

Classification code (ADR)	:	C11
Special provisions (ADR)	:	238, 295, 598
Limited quantities (ADR)	:	1l
Excepted quantities (ADR)	:	E0
Packing instructions (ADR)	:	P003, P801a
Special packing provisions (ADR)	:	PP16
Transport category (ADR)	:	3
Special provisions for carriage - Bulk (ADR)	:	VV14
Hazard identification number (Kemler No.)	:	80
Orange plates	:	
Tunnel restriction code (ADR)	:	E
EAC code	:	2R

- Transport by sea

Special provisions (IMDG)	: 29, 238
Limited quantities (IMDG)	: 1 L
Excepted quantities (IMDG)	: E0
Packing instructions (IMDG)	: P003
Special packing provisions (IMDG)	: PP16
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-B
Stowage category (IMDG)	: A
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.
MFAG-No	: 154

- Air transport

PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Forbidden
PCA limited quantity max net quantity (IATA)	: Forbidden
PCA packing instructions (IATA)	: 872
PCA max net quantity (IATA)	: No limit
CAO packing instructions (IATA)	: 872
CAO max net quantity (IATA)	: No limit
Special provisions (IATA)	: A48, A67, A164, A183
ERG code (IATA)	: 8L

- Inland waterway transport

No data available

- Rail transport

No data available

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 REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany

VwVwS Annex reference	: Water hazard class (WGK) 2, hazard to waters (Classification according to VwVwS, Annex 4)
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 stoffen	: 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 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 by the supplier

SECTION 16: Other information

Indication of changes:
According to Regulation (EU) 2015/830 (REACH Annex II).

Full text of H- and EUH-statements:

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
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

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