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

### 1.1. Product identifier

Product form : Article  
Trade name : MCS Lead Acid Battery  
Type of product : Lead Acid Battery  
Synonyms : Sealed lead Acid Battery, Gel battery, maintenance free battery  
Product group : Trade product

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

#### 1.2.1. Relevant identified uses

Main use category : Professional uses, Industrial use  
Use of the substance/mixture : Starter battery

#### 1.2.2. Uses advised against

No data available

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

DC-AFAM NV  
Venecoweg 22A - De Prijckels E17  
B 9810 Nazareth - Belgium  
T +32(0)9 243 73 90 - F +32(0)9 243 73 95  
[service@dc-afam.com](mailto:service@dc-afam.com)  
[www.afam.com](http://www.afam.com)

### 1.4. Emergency telephone number

Country	Official advisory body	Address	Emergency number
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre, Wolfson Unit	Claremont Place Newcastle-upon-Tyne NE1 4LP Newcastle	0844 892 0111 (UK only, 24/7, healthcare professionals only)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

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


Not classified

### 2.2. Label elements

Article. According to EC directives or the corresponding national regulations there is no labelling obligation for this product.

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

Not applicable.

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### 2.3. Other hazards

Other hazards : PBT/vPvB data : Not applicable . This article contains neither dangerous substances nor dangerous mixtures which are intended to be released under normal or reasonably foreseeable conditions of use.

Component	
Lead (7439-92-1)	<p>This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII</p> <p>This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII</p>

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

Component	
Lead(7439-92-1)	<p>The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605</p>

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable


### 3.2. Mixtures

Substance name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Lead substance listed as REACH Candidate	(CAS-No.) 7439-92-1 (EC-No.) 215-267-0;231-100-4 (EC Index) 082-014-00-7	65 – 75	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Repr. 1A, H360Df STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
sulphuric acid ... %	(CAS-No.) 7664-93-9 (EC-No.) 231-639-5 (EC Index) 016-020-00-8	~ 5	Skin Corr. 1A, H314
Tin	(CAS-No.) 7440-31-5 (EC-No.) 231-141-8	< 0,5	Not classified
Calcium	(CAS-No.) 7440-70-2 (EC-No.) 231-179-5 (EC Index) 020-001-00-X	< 0,1	Water-react. 2, H261

#### Specific concentration limits:

Substance name	Product identifier	Specific concentration limits
sulphuric acid ... %	(CAS-No.) 7664-93-9 (EC-No.) 231-639-5 (EC Index) 016-020-00-8	( 5 ≤C < 15) Eye Irrit. 2, H319 ( 5 ≤C < 15) Skin Irrit. 2, H315 ( 15 ≤C < 100) Skin Corr. 1A, H314

Full text of H-statements: see section 16

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## SECTION 4: First aid measures

### 4.1. Description of first aid measures

Additional advice	: First aider: Pay attention to self-protection!. See also section 8 . Show this safety data sheet to the doctor in attendance. Never give anything by mouth to an unconscious person. In case of doubt or persistent symptoms, consult always a physician.
Inhalation	: Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention. Artificial respiration and/or oxygen may be necessary.
Skin contact	: Remove contaminated, saturated clothing immediately. Wash skin thoroughly with soap and water or use recognized skin cleanser. Get immediate medical advice/attention.
Eyes contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
Ingestion	: Call a physician immediately. If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label. Aspiration hazard if swallowed - can enter lungs and cause damage. Observe risk of aspiration if vomiting occurs.

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

Inhalation	: None under normal processing. Inhalation of fumes or vapours may cause respiratory irritation. (Electrolyte).
Skin contact	: None under normal processing. May cause skin irritation. Burns . (Electrolyte).
Eyes contact	: None under normal processing. May cause eye irritation. Burns . (Electrolyte).
Ingestion	: None under normal processing. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract . (Electrolyte).

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media


Suitable extinguishing media	: dry chemical powder. Dry sand. Fire class B.
Unsuitable extinguishing media	: Water.

### 5.2. Special hazards arising from the substance or mixture

Specific hazards	: Do not allow run-off from fire-fighting to enter drains or water courses. Dispose of waste in accordance with environmental legislation.
Explosion hazard	: Heating may cause an explosion.
Hazardous decomposition products in case of fire	: Metallic oxides. Carbon dioxide. Carbon monoxide.

### 5.3. Advice for firefighters

Firefighting instructions	: Evacuate area. Use water spray or fog for cooling exposed containers. Contain the extinguishing fluids by bunding. Prevent fire fighting water from entering the environment.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus.
Other information	: Do not allow run-off from fire-fighting to enter drains or water courses. Dispose of waste in accordance with environmental legislation.

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## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

For non-emergency personnel : Provide adequate ventilation. Evacuate personnel to a safe area. Avoid contact with skin, eyes and clothing. Do not breathe vapours. Concerning personal protective equipment to use, see section 8. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

#### 6.1.2. For emergency responders

For emergency responders : Ensure procedures and training for emergency decontamination and disposal are in place. Reference to other sections 8.

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Wipe up with absorbent material (eg. cloth, fleece). Dispose of contaminated materials in accordance with current regulations.

### 6.4. Reference to other sections

Concerning disposal elimination after cleaning, see section 13. Concerning personal protective equipment to use, see section 8 .

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Provide adequate ventilation. Use personal protective equipment as required. Concerning personal protective equipment to use, see section 8. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Disconnect the battery before working on or near any disposed part of the vehicle electrical system. Avoid shock and friction. Take any precaution to avoid mixing with Incompatible materials. Refer to Section 10 on Incompatible Materials.

Hygiene measures : Use only in area provided with appropriate exhaust ventilation. Wash hands and face before breaks and immediately after handling of the product. When using do not eat, drink or smoke. Keep good industrial hygiene.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a dry, cool and well-ventilated place. Protect from moisture. Store at room temperature. Remove all sources of ignition. Avoid shock and friction. Do not store near or with any of the incompatible materials listed in section 10.

Incompatible materials : Strong oxidizing agents. Acids. Water.

Heat and ignition sources : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Protect from sunlight.

Special rules on packaging : Do not pierce or burn, even after use.


### 7.3. Specific end use(s)

Starter battery.


## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters


Lead (7439-92-1)		
Austria	MAK (OEL TWA)	0,1 mg/m <sup>3</sup> (inhalable fraction)
Austria	MAK (OEL STEL)	0,4 mg/m <sup>3</sup> (inhalable fraction)
Bulgaria	OEL TWA	0,05 mg/m <sup>3</sup>
Croatia	GVI (OEL TWA) [1]	0,15 mg/m <sup>3</sup>
Cyprus	OEL TWA	0,15 mg/m <sup>3</sup>
Czech Republic	PEL (OEL TWA)	0,05 mg/m <sup>3</sup>
Denmark	OEL TWA [1]	0,05 mg/m <sup>3</sup> (dust, fume and powder)

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Lead (7439-92-1)		
Estonia	OEL TWA	0,1 mg/m <sup>3</sup> (total dust) 0,05 mg/m <sup>3</sup> (respirable dust)
Finland	HTP (OEL TWA) [1]	0,1 mg/m <sup>3</sup> (all works (Annex 3))
France	VME (OEL TWA)	0,1 mg/m <sup>3</sup> (restrictive limit)
Germany	BLV	300 µg/l Parameter: Lead - Medium: whole blood - Sampling time: no restriction (women age below 45 years) 400 µg/l Parameter: Lead - Medium: whole blood - Sampling time: no restriction
Gibraltar	OEL TWA	0,15 mg/m <sup>3</sup>
Greece	OEL TWA	0,15 mg/m <sup>3</sup>
Hungary	AK (OEL TWA)	0,1 mg/m <sup>3</sup> 0,05 mg/m <sup>3</sup> (respirable dust)
Ireland	OEL TWA [1]	0,15 mg/m <sup>3</sup>
Ireland	OEL STEL	0,45 mg/m <sup>3</sup> (calculated)
Italy	OEL TWA	0,15 mg/m <sup>3</sup>
Latvia	OEL TWA	0,05 mg/m <sup>3</sup>
Lithuania	IPRV (OEL TWA)	0,15 mg/m <sup>3</sup> (inhalable fraction) 0,07 mg/m <sup>3</sup> (respirable fraction)
Luxembourg	OEL TWA	0,15 mg/m <sup>3</sup>
Netherlands	MAC-TGG (OEL TWA)	0,15 mg/m <sup>3</sup>
Poland	NDS (OEL TWA)	0,05 mg/m <sup>3</sup> (inhalable fraction)
Portugal	OEL TWA	0,05 mg/m <sup>3</sup> (mandatory indicative limit value)
Romania	OEL TWA	0,15 mg/m <sup>3</sup>
Slovakia	NPHV (OEL TWA) [1]	0,15 mg/m <sup>3</sup> (inhalable fraction) 0,5 mg/m <sup>3</sup> (respirable fraction)
Slovenia	OEL TWA	0,1 mg/m <sup>3</sup> (inhalable fraction)
Slovenia	OEL STEL	0,4 mg/m <sup>3</sup> (inhalable fraction)
Spain	VLA-ED (OEL TWA) [1]	0,15 mg/m <sup>3</sup>
Sweden	NGV (OEL TWA)	0,1 mg/m <sup>3</sup> (inhalable fraction) 0,05 mg/m <sup>3</sup> (respirable fraction)
United Kingdom	WEL TWA (OEL TWA) [1]	0,15 mg/m <sup>3</sup>
United Kingdom	WEL STEL (OEL STEL)	0,45 mg/m <sup>3</sup> (calculated)
Norway	Grenseverdi (OEL TWA) [1]	0,05 mg/m <sup>3</sup> (dust and fume)
Norway	Korttidsverdi (OEL STEL)	0,15 mg/m <sup>3</sup> (value calculated-dust and fume)
Switzerland	MAK (OEL TWA) [1]	0,1 mg/m <sup>3</sup> (inhalable dust)
Switzerland	KZGW (OEL STEL)	0,8 mg/m <sup>3</sup> (inhalable dust)
Australia	OES TWA [1]	0,05 mg/m <sup>3</sup> (dust and fume)
Canada (Quebec)	VEMP (OEL TWA)	0,05 mg/m <sup>3</sup>
USA - ACGIH	ACGIH OEL TWA	0,05 mg/m <sup>3</sup>
USA - IDLH	IDLH	100 mg/m <sup>3</sup>
USA - NIOSH	NIOSH REL TWA	0,05 mg/m <sup>3</sup>
USA - OSHA	OSHA PEL TWA [1]	50 µg/m <sup>3</sup>
Tin (7440-31-5)		
Austria	MAK (OEL TWA)	2 mg/m <sup>3</sup> (inhalable fraction)
Austria	MAK (OEL STEL)	4 mg/m <sup>3</sup> (inhalable fraction)

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<b>Tin (7440-31-5)</b>		
Belgium	OEL TWA	2 mg/m <sup>3</sup>
Bulgaria	OEL TWA	0,1 mg/m <sup>3</sup> (applies to its organic compounds) 2 mg/m <sup>3</sup> (applies to its inorganic compounds)
Croatia	GVI (OEL TWA) [1]	2 mg/m <sup>3</sup>
Cyprus	OEL TWA	2 mg/m <sup>3</sup>
Finland	HTP (OEL TWA) [1]	2 mg/m <sup>3</sup>
Greece	OEL TWA	2 mg/m <sup>3</sup>
Ireland	OEL TWA [1]	2 mg/m <sup>3</sup>
Ireland	OEL STEL	6 mg/m <sup>3</sup> (calculated)
Malta	OEL TWA	2 mg/m <sup>3</sup>
Poland	NDS (OEL TWA)	2 mg/m <sup>3</sup> (inhalable fraction)
Portugal	OEL TWA	2 mg/m <sup>3</sup>
Slovenia	OEL TWA	2 mg/m <sup>3</sup> (applies to Tin(IV) inorganic compounds-inhalable fraction) 8 mg/m <sup>3</sup> (applies to Tin(II) inorganic compounds-inhalable fraction)
Spain	VLA-ED (OEL TWA) [1]	2 mg/m <sup>3</sup>
Sweden	NGV (OEL TWA)	2 mg/m <sup>3</sup> (inhalable fraction)
Australia	OES TWA [1]	2 mg/m <sup>3</sup>
Canada (Quebec)	VEMP (OEL TWA)	2 mg/m <sup>3</sup>
USA - ACGIH	ACGIH OEL TWA	2 mg/m <sup>3</sup> (inhalable particulate matter)
USA - IDLH	IDLH	100 mg/m <sup>3</sup>
USA - NIOSH	NIOSH REL TWA	2 mg/m <sup>3</sup>
<b>sulphuric acid ... % (7664-93-9)</b>		
EU	IOEL TWA	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 (thoracic fraction))
Austria	MAK (OEL TWA)	0,1 mg/m <sup>3</sup> (corresponds to 0.05 mg/m <sup>3</sup> Thoracic-inhalable fraction)
Austria	MAK (OEL STEL)	0,2 mg/m <sup>3</sup> (inhalable fraction)
Belgium	OEL TWA	0,2 mg/m <sup>3</sup>
Bulgaria	OEL TWA	0,05 mg/m <sup>3</sup>
Croatia	GVI (OEL TWA) [1]	0,05 mg/m <sup>3</sup>
Cyprus	OEL TWA	0,05 mg/m <sup>3</sup> (vapor)
Czech Republic	PEL (OEL TWA)	1 mg/m <sup>3</sup> 0,05 mg/m <sup>3</sup> (concentrated-mist)
Denmark	OEL TWA [1]	0,05 mg/m <sup>3</sup> (thoracic fraction-mist)
Estonia	OEL TWA	0,5 mg/m <sup>3</sup> (particles that reach the upper respiratory tract)
Finland	HTP (OEL TWA) [1]	0,05 mg/m <sup>3</sup> (thoracic fraction)
Finland	HTP (OEL STEL)	0,1 mg/m <sup>3</sup> (thoracic fraction)
France	VME (OEL TWA)	0,05 mg/m <sup>3</sup> (thoracic fraction)
Germany	Occupational exposure limit value (mg/m <sup>3</sup> ) (TRGS900)	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)

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<b>sulphuric acid ... % (7664-93-9)</b>		
Gibraltar	OEL TWA	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)
Greece	OEL TWA	0,05 mg/m <sup>3</sup> (mist)
Hungary	AK (OEL TWA)	0,05 mg/m <sup>3</sup> (respirable fraction of the thoracic fraction)
Ireland	OEL TWA [2]	0,05 ppm
Ireland	OEL STEL [ppm]	0,15 ppm (calculated)
Italy	OEL TWA	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	0,05 mg/m <sup>3</sup> (by choosing an appropriate exposure monitoring method there should be taken into account possible restrictions and the impact which could be caused by the presence of other Sulfur components-fog, which is defined as the thoracic fraction)
Lithuania	IPRV (OEL TWA)	0,05 mg/m <sup>3</sup> (vapor)
Lithuania	TPRV (OEL STEL)	3 mg/m <sup>3</sup> (fog-vapor)
Luxembourg	OEL TWA	0,05 mg/m <sup>3</sup> (thoracic fraction)
Malta	OEL TWA	0,05 mg/m <sup>3</sup> (mist)
Netherlands	MAC-TGG (OEL TWA)	0,05 mg/m <sup>3</sup> (mist, thoracic fraction)
Poland	NDS (OEL TWA)	0,05 mg/m <sup>3</sup> (thoracic fraction)
Portugal	OEL TWA	0,05 mg/m <sup>3</sup> (thoracic fraction-mist)
Romania	OEL TWA	0,05 mg/m <sup>3</sup> (when selecting an appropriate exposure monitoring method there should be taken in account the potential limitations and interferences that may arise because of other Sulfur compounds presence-thoracic fraction)
Slovakia	NPHV (OEL TWA) [1]	0,05 mg/m <sup>3</sup>
Slovenia	OEL TWA	0,05 mg/m <sup>3</sup> (inhalable fraction, fog)
Slovenia	OEL STEL	0,05 mg/m <sup>3</sup> (inhalable fraction, fog)
Spain	VLA-ED (OEL TWA) [1]	0,05 mg/m <sup>3</sup> (indicative limit value-mist)
Sweden	NGV (OEL TWA)	0,1 mg/m <sup>3</sup> (inhalable fraction)
Sweden	KTV (OEL STEL)	0,2 mg/m <sup>3</sup> (inhalable fraction)
United Kingdom	WEL TWA (OEL TWA) [1]	0,05 mg/m <sup>3</sup> (mist)
United Kingdom	WEL STEL (OEL STEL)	0,15 mg/m <sup>3</sup> (calculated-mist)
Norway	Grenseverdi (OEL TWA) [1]	0,1 mg/m <sup>3</sup> (thoracic fraction)
Norway	Korttidsverdi (OEL STEL)	0,3 mg/m <sup>3</sup> (value calculated-thoracic fraction)
Switzerland	MAK (OEL TWA) [1]	0,1 mg/m <sup>3</sup> (inhalable dust)
Switzerland	KZGW (OEL STEL)	0,2 mg/m <sup>3</sup> (inhalable dust)
Australia	OES TWA [1]	1 mg/m <sup>3</sup>
Australia	OES STEL	3 mg/m <sup>3</sup>
Canada (Quebec)	VECD (OEL STEL)	3 mg/m <sup>3</sup>

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sulphuric acid ... % (7664-93-9)		
Canada (Quebec)	VEMP (OEL TWA)	1 mg/m <sup>3</sup>
USA - ACGIH	ACGIH OEL TWA	0,2 mg/m <sup>3</sup>
USA - IDLH	IDLH	15 mg/m <sup>3</sup>
USA - NIOSH	NIOSH REL TWA	1 mg/m <sup>3</sup>
USA - OSHA	OSHA PEL TWA [1]	1 mg/m <sup>3</sup>

Additional information : Concentration measurement in air. Personal monitoring

### **8.2. Exposure controls**


- Engineering measure(s) : Provide adequate ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Take precautionary measures against static discharges. Organisational measures to prevent /limit releases, dispersion and exposure : See also section 7 .
- Hand protection : Not required for normal conditions of use. Protective gloves (EN 374) -. NBR (Nitrile rubber) . The selection of specific gloves for a specific application and time of use in a working area, should also take into account other factors on the working space, such as (but not limited to): other chemicals that are possibly used, physical requirements (protection against cutting/drilling, skill, thermal protection), and the instructions/specification of the supplier of gloves.
- Eye protection : Not required for normal conditions of use. Safety glasses (EN 166)
- Body protection : Not required for normal conditions of use
- Respiratory protection : No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. full face mask (DIN EN 136). Half-face mask (DIN EN 140). Filter type: AP (EN141).
- Environmental exposure controls : Comply with applicable Community environmental protection legislation. Avoid release to the environment.

## **SECTION 9: Physical and chemical properties**

### **9.1. Information on basic physical and chemical properties**

- Physical state : Solid
- Appearance : Unit. Hermetically sealed.
- Colour : black case & blue lid.
- Odour : None.
- Odour threshold : Not applicable
- pH : Not applicable
- pH solution : Not applicable
- Relative evaporation rate (butylacetate=1) : Not applicable
- Melting / freezing point : Not applicable
- Freezing point : Not applicable
- Initial boiling point and boiling range : Not applicable
- Flash point : Not applicable
- Auto-ignition temperature : Not applicable
- Decomposition temperature : Not applicable
- Flammability (solid, gas) : Not applicable
- Vapour pressure : Not applicable
- Vapour density : Not applicable
- Relative density : Not applicable
- Solubility : Insoluble in water.
- Partition coefficient n-octanol/water : Not applicable



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Kinematic viscosity	: Not applicable
Dynamic viscosity	: Not applicable
Explosive properties	: Not applicable. The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.
Oxidising properties	: Not applicable. The classification procedure needs not to be applied because there are no chemical groups present in the molecule which are associated with oxidising properties.
Explosive limits	: Not applicable
Particle size	: Not applicable
Particle size distribution	: Not applicable
Particle shape	: Not applicable
Particle aspect ratio	: Not applicable
Particle aggregation state	: Not applicable
Particle agglomeration state	: Not applicable
Particle specific surface area	: Not applicable
Particle dustiness	: Not applicable

## **9.2. Other information**

### **9.2.1. Information with regard to physical hazard classes**

No data available

### **9.2.2. Other safety characteristics**

Relative evaporation rate (butylacetate=1) : Not applicable

## **SECTION 10: Stability and reactivity**

### **10.1. Reactivity**

None under normal conditions. Reference to other sections: 10.4 & 10.5.

### **10.2. Chemical stability**

Stable under normal conditions.

### **10.3. Possibility of hazardous reactions**

No data available

### **10.4. Conditions to avoid**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Protect from sunlight. Avoid shock and friction. See Section 7 for information on safe handling.

### **10.5. Incompatible materials**

Strong oxidizing agents. Acids. Water. See Section 7 for information on safe handling.

### **10.6. Hazardous decomposition products**


Carbon oxides (CO, CO<sub>2</sub>). metal oxides. Reference to other sections 5.2.

## **SECTION 11: Toxicological information**

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

Acute toxicity : Not classified (Article: Not applicable)

<b>Tin (7440-31-5)</b>	
LD50/oral/rat	700 mg/kg
<b>sulphuric acid ... % (7664-93-9)</b>	
LD50/oral/rat	2140 mg/kg bodyweight

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sulphuric acid ... % (7664-93-9)	
LC50/inhalation/4h/rat	0,375 mg/l/4h
LC50, Inhalation, Rat	375 mg/m <sup>3</sup>
LC50, 4h, Inhalation, mouse	0.85 mg/l
LC50, 8h, Inhalation, mouse	0.6 mg/l

Skin corrosion/irritation : Not classified (Article: Not applicable)  
pH: Not applicable

Serious eye damage/irritation : Not classified (Article: Not applicable)  
pH: Not applicable

Respiratory or skin sensitisation : Not classified (Article: Not applicable)

Germ cell mutagenicity : Not classified (Article: Not applicable)

Carcinogenicity : Not classified (Article: Not applicable)

Reproductive toxicity : Not classified (Article: Not applicable)

STOT-single exposure : Not classified (Article: Not applicable)

STOT-repeated exposure : Not classified (Article: Not applicable)

sulphuric acid ... % (7664-93-9)	
LOAEC, 28d, Inhalation, Rat	0.3 mg/m <sup>3</sup>

Aspiration hazard : Not classified (Article: Not applicable)

MCS Lead Acid Battery	
Kinematic viscosity	Not applicable

Other information : Not applicable.

## 11.2. Information on other hazards

### 11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

### 11.2.2 Other information

Other information : Not applicable

## SECTION 12: Ecological information


### 12.1. Toxicity

Environmental properties : Ecological injuries are not known or expected under normal use.

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

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 - Crustacea [1]	600 µg/l (Exposure time: 48 h - Species: water flea)

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sulphuric acid ... % (7664-93-9)	
LC50 - Fish [1]	16 mg/l (96h)
LC50 - Other aquatic organisms [1]	100 mg/l Invertebrates.
EC50 - Other aquatic organisms [1]	100 mg/l Invertebrates.
NOEC (additional information)	NOEC, Fish : 0.025 mg/L NOEC, Invertebrates. : 0.15 mg/L NOEC, algae : 100 mg/L (Freshwater)

#### **12.2. Persistence and degradability**

MCS Lead Acid Battery	
Persistence and degradability	No data available.

#### **12.3. Bioaccumulative potential**

MCS Lead Acid Battery	
Partition coefficient n-octanol/water	Not applicable
Bioaccumulative potential	No data available.

sulphuric acid ... % (7664-93-9)	
BCF - Fish [1]	(no bioaccumulation)

#### **12.4. Mobility in soil**

MCS Lead Acid Battery	
Ecology - soil	No data available.

#### **12.5. Results of PBT and vPvB assessment**

MCS Lead Acid Battery	
Results of PBT assessment	Not applicable.


Component	
Lead (7439-92-1)	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

#### **12.6. Endocrine disrupting properties**

Adverse effects on the environment caused by endocrine disrupting properties : Not applicable

#### **12.7. Other adverse effects**

Other adverse effects : No information available

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### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods






Product/Packaging disposal recommendations : Avoid release to the environment. Dispose of empty containers and wastes safely. See Section 7 for information on safe handling. Refer to manufacturer/supplier for information on recovery/recycling. Recycling is preferred to disposal or incineration. If recycling is not possible, eliminate in accordance with local valid waste disposal regulations. Handle contaminated packages in the same way as the substance itself. Dispose of contaminated materials in accordance with current regulations.

Additional information : Do not puncture or incinerate.

European waste catalogue (2001/573/EC, 75/442/EEC, 91/689/EEC) : The following Waste Codes are only suggestions: other batteries and accumulators  
Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities

### SECTION 14: Transport information


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

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
2800	2800	2800	2800	2800
<b>14.2. UN proper shipping name</b>				
BATTERIES, WET, NON-SPILLABLE	BATTERIES, WET, NON-SPILLABLE	Batteries, wet, non-spillable	BATTERIES, WET, NON-SPILLABLE	BATTERIES, WET, NON-SPILLABLE
<b>Transport document description</b>				
UN 2800 BATTERIES, WET, NON-SPILLABLE, 8, (E)	UN 2800 BATTERIES, WET, NON-SPILLABLE, 8	UN 2800 Batteries, wet, non-spillable, 8	UN 2800 BATTERIES, WET, NON-SPILLABLE, 8	UN 2800 BATTERIES, WET, NON-SPILLABLE, 8
<b>14.3. Transport hazard class(es)</b>				
8	8	8	8	8
				
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

#### 14.6. Special precautions for user

##### - Overland transport

Classification code (ADR) : C11  
Special provisions : 238, 295, 598  
Limited quantities (ADR) : 11  
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

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Hazard identification number (Kemler No.) : 80

Orange plates :



Tunnel restriction code : 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.

**- 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**

Classification code (ADN) : C11

Special provisions (ADN) : 238, 295, 598

Limited quantities (ADN) : 1 L

Excepted quantities (ADN) : E0

Equipment required (ADN) : PP, EP

Number of blue cones/lights (ADN) : 0

**- Rail transport**

Classification code (RID) : C11

Special provisions (RID) : 238, 295, 598

Limited quantities (RID) : 1L


Excepted quantities (RID) : E0

Packing instructions (RID) : P003, P801a

Special packing provisions (RID) : PP16

Transport category (RID) : 3

Special provisions for carriage – Bulk (RID) : VW14

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Colis express (express parcels) (RID) : CE8

Hazard identification number (RID) : 80

**14.7. Maritime transport in bulk according to IMO instruments**

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 substance on the REACH candidate list

**15.1.2. National regulations**

**France**

No ICPE	Installations classées Désignation de la rubrique	Code Régime	Rayon
na	Not Applicable	na	na

**Germany**

Regulatory reference : WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1)

WGK remark : Electrolyte

Hazardous Incident Ordinance (12. BlmSchV) : Is not subject of the 12. BlmSchV (Hazardous Incident Ordinance)

**Netherlands**

Waterbezwaarlijkheid : categorie Z(1) - niet-afbreekbare stoffen met gevaarlijke eigenschappen voor mens en milieu (carcinogeniteit/ mutageniteit/ reprotoxiciteit/ bioaccumulerend vermogen/ toxiciteit of persistentie) (Electrolyte)

SZW-lijst van kankerverwekkende stoffen : sulphuric 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

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**

Article: Not applicable

<b>For the following substances of this mixture a chemical safety assessment has been carried out</b>
sulphuric acid ... %

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## SECTION 16: Other information

Indication of changes:

2.2	No labelling obligation	Added	
5.3	Advice for firefighters	Modified	
7.2	Storage conditions	Modified	
7.3	Specific end use(s)	Modified	
10	Stability and reactivity	Modified	
11.2	Adverse health effects caused by endocrine disrupting properties	Added	
12.6	Adverse effects on the environment caused by endocrine disrupting properties	Added	
15.1	Water hazard class (WGK)	Modified	
15.1	Waterbezwaarlijkheid	Added	

Abbreviations and acronyms:


	ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC IATA = International Air Transport Association IMDG = International Maritime Dangerous Goods Code LEL = Lower Explosive Limit/Lower Explosion Limit UEL = Upper Explosion Limit/Upper Explosive Limit REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
	EC50 = Median Effective Concentration
	LC50 = Median lethal concentration
	LD50 = Median lethal dose
	TLV = Threshold limits
	TWA = time weighted average
	STEL = Short term exposure limit
	persistent, bioaccumulating and toxic (PBT).
	vPvB = very persistent and very bioaccumulating
	WGK = Wassergefährdungsklasse (Water Hazard Class under German Federal Water Management Act)

Sources of key data used to compile the datasheet : SDS Manufacturer/Supplier, LOLI, European chemicals Agency.

Training advice : Training staff on good practice. Manipulations are to be done only by qualified and authorised persons.

Full text of H- and EUH-statements:

Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), 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
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Repr. 1A	Reproductive toxicity, Category 1A
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
Water-react. 2	Substances and Mixtures which, in contact with water, emit flammable gases, Category 2
H261	In contact with water releases flammable gases.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.

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H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H360Df	May damage the unborn child. Suspected of damaging fertility.
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.

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878  
Classification according to Regulation (EC) No. 1272/2008 [CLP]  
Labelling according to Regulation (EC) No. 1272/2008 [CLP]

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