



# Safety Data Sheet

## According to Regulation (EU) No 2015/830

Wet Flooded lead-Acid Battery

Version 3.0

Issue date:  
23/09/2017

Revision date:  
02/12/2019

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

#### 1.1 Product identifier:

Product Form: Battery  
Product name: Lawn&Garden Ca/Ca Series – Starter batteries

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

1.2.1 Identified uses: Automotive, agricultural starter battery  
1.2.2 Uses advised against: No additional information

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

Supplier: BS BATTERY S.a.s  
Address: 23 bis rue Edouard Nieuport  
92150 Suresnes  
France  
Telephone: (France) +33 1 83 62 45 55

#### 1.4 Emergency telephone Number:

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

### Section 2 Hazards Identification

#### 2.1 Classification of the substance/mixture:

The mixture is classified as following regulation:

REGULATION (EC) No 1272/2008 (CLP)	
Skin corrosion/irritation Category 1A	H314
Eye irritation Category 1A	H318
Acute toxicity (inhalation: dust, mist) Category 1A	H332
Reproductive toxicity, Category 1A	H360Fd
Specific target organ toxicity (repeated exposure) Category 1A	H372
Hazardous to the aquatic environment -Acute Hazard, Category 1	H400
Hazardous to the aquatic environment - Chronic Hazard, Category 1	H410

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

## 2.2 label elements:

### Hazard Pictograms (CLP):



### Signal Word (CLP):

Danger

### Hazard Statement:

H314 - Causes severe skin burns and eye damage  
H318 - Cause serious eye damage  
H332 - Harmful if inhaled  
H350 - May cause cancer (inhalation)  
H360Fd - May damage fertility. Suspected of damaging the unborn child  
H362 - May cause harm to breast-fed children  
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

### Precautionary statement:

P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood  
P260 - Do not breathe dust/fume/gas/mist/vapours/spray  
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray  
P263 - Avoid contact during pregnancy/while nursing  
P264 - Wash hands thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product  
P271 - Use only outdoors or in a well-ventilated area  
P280 - Wear protective gloves, protective clothing, eye protection, face protection  
P281 - Use personal protective equipment as required  
P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308 + P313: IF exposed or concerned: Get medical advice/attention.  
P310: Immediately call a POISON CENTER/doctor.  
P363: Wash contaminated clothing before reuse. P405: Store locked up.  
P501: Dispose of contents/container in accordance with local regulation

## 2.3 Other hazards:

Lead may be toxic to blood, kidneys, central nervous system.

## Section 3 Composition/ Information on ingredients

Substance/Mixture:

Mixture

Ingredient(s):

Chemical Name	Registration No.	CAS No.	EC No.	Approximate % (*/* )	Classification
LEAD	N/A	7439-92-1	231-100-4	66 to 68	H362 H360FD H400 H410
ANTIMONY (Sb)	N/A	7440-36-0	231-146-5	0,5 to 1,5	Not classified
DILUTE SULFURIC ACID/ OIL OF VITRIOL	N/A	7664-93-9	231-639-5	20 to 23	H314(1A)
CASE MATERIAL: POLYPROPYLENE (PP RESIN)	N/A	9003-07-0	N/A	7 to 10	Not classified
SEPARATOR	N/A	N/A	N/A	2 to 3	Not classified

## Section 4 First aid measures

### 4.1 Description of first aid measures:

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

#### 4.1.1 In case of inhalation:

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

#### 4.1.2 In case of skin contact:

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

#### 4.1.3 In case of eyes contact:

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

#### 4.1.4 In case of ingestion:

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

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

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

#### Acute Health Hazards:

Sulfuric Acid: Severe skin irritation, burns, damage to cornea may cause blindness, upper respiratory irritation. Lead Compounds: May cause abdominal pain, nausea, headaches, vomiting, loss of appetite, severe cramping, muscular aches and weakness, and difficulty sleeping. The toxic effects of lead are cumulative and slow to appear. It affects the kidneys, reproductive and central nervous systems. The symptoms of lead overexposure are listed above. Exposure to lead from a battery most often occurs during lead

reclamation operations through the breathing or ingestion of lead dust or fumes.

#### Chronic Health Hazards:

Sulfuric acid: Possible scarring of the cornea, inflammation of the nose, throat and bronchial tubes, possible erosion of tooth enamel. Lead Compounds: May cause anemia, damage to kidneys and nervous system, and damage to reproductive system in both males and females.

**Medical Conditions Generally Aggravated by Exposure:** Inorganic lead and its compounds can aggravate chronic forms of kidney, liver, and neurological diseases. Contact of battery electrolyte (acid) with the skin may aggravate skin diseases such as eczema and contact dermatitis. Overexposure to sulfuric acid mist may cause lung damage and aggravate pulmonary conditions.

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

No further relevant information available.

### Section 5 Fire-Fighting measures

#### 5.1 Extinguishing media:

**Suitable extinguishing media:** Use dry chemical, foam or carbon dioxide.

**Unsuitable extinguishing media:** Not available.

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

Sealed batteries can emit hydrogen only if over charged (float voltage > 2.41 VPC).  
The gas enters the air through the vent caps. To ABS: Temperatures over 300 °C (572 °F) may release combustible gases. To PP: Temperatures over 380 °C (716 °F) may release combustible gases.

#### 5.3 Advice for firefighters:

Wear positive pressure self-contained breathing apparatus. Wear fully protective suit.

### Section 6 Accidental release measures

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

##### 6.1.1 For non-emergency personnel:

Use proper personal protective equipment as indicated in Section 8. Ensure adequate ventilation. Avoid contact with eyes. Wear protective equipment. Keep unprotected persons away.

##### 6.1.2 For emergency responders:

Wear positive pressure self-contained breathing apparatus if dust is generated.

#### 6.2 Environmental Precautions:

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

#### 6.3 Methods for Containment and

##### Cleaning up:

In case the release occurs, stop flow of material: contain/absorb small spills with dry sand, earth, and vermiculite. If possible, carefully neutralize spilled electrolyte with soda ash, sodium bicarbonate, lime, etc. Wear acid-resistant clothing, boots, gloves, and face shield. Do not allow discharge of unneutralized acid to sewer. Spent Batteries - send to secondary lead smelter for recycling. Follow applicable federal, state and local regulations Neutralize as in preceding step. Collect neutralized material in sealed container and handle as hazardous waste as applicable.

#### 6.4 Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

### Section 7 Handling and storage

#### 7.1 Precautions for safe handling:

##### 7.1.1 Protective measures:

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

##### 7.1.2 Advice on general occupational

##### hygiene:

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

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

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

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

Not applicable.

### Section 8 Exposure Controls/ Personal Protection

#### 8.1 Control parameters:

##### 8.1.1 Occupational exposure limits:

Substance	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)	
	ppm	mg/ m3	ppm	mg/ m3
Lead	-	0,05	-	0,05
Antimony	-	1	-	0,5
Sulphuric acid	-	0,5	-	0,2

##### 8.1.2 Additional exposure limits under the conditions of use:

Not available

##### 8.1.3 DNEL/DMEL and PNEC-Values:

Not available

#### 8.2 Exposure controls:

There are no special exposure controls for the handling, storage, installation or use of VRLA batteries.

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

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

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

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

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

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

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



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

## Section 9 Physical and chemical properties

### 9.1 Information on basic physical and chemical properties:

**Appearance :** Liquid

**Colour:** Not available

**Odour:** Not available

**Odour threshold:** Not available

**pH:** Not available

**Melting point/range (°C):** 327.5°C(CAS# 7439-92-1)

**Boiling point/range (°C):** 1700°C(CAS# 7439-92-1)

**Flash point (°C):** Not available

**Evaporation rate:** Not available

**Flammability limit - lower (%):** Not available

**Flammability (solid, gas):** Non flammable(CAS# 7439-92-1)

**Ignition temperature (°C):** Not available

**Upper/lower flammability/explosive limits:** Not available

**Vapour pressure (50°C):** 1.33hPa

**Vapour density:** Not available

**Relative Density:** Not available

**Bulk density (kg/m<sup>3</sup>):** 11.34g/m<sup>3</sup>

**Water solubility (g/l):** Soluble in water

n-Octanol/Water (log Po/w):	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity, dynamic (mPa.s):	Not available
Explosive properties:	Not available
Oxidising properties:	Not available
Molecular Formula:	Not applicable
Molecular Weight:	207.2

## 9.2. Other information:

**Fat solubility(solvent– oil to be specified)  
etc:** Not available

**Surface tension:** Not available  
**Dissociation constant in water( pKa):** Not available  
**Oxidation-reduction Potential:** Not available  
**Specific gravity:** Not available

## Section 10 Stability and reactivity

- 10.1 Reactivity:** The substance is stable under normal storage and handling conditions.
- 10.2 Chemical stability:** Stable at room temperature in closed containers under normal storage and handling conditions.
- 10.3 Possibility of hazardous reactions:** No dangerous reactions known.
- 10.4 Conditions to avoid:** Incompatible materials. High temperature, Sparks and other sources of ignition. Avoid mixing acid with other chemicals.
- 10.5 Incompatible materials:** Potassium, carbides, sulphides, peroxides, phosphorus, sulphurs, ketone, ester, petrolatum. Reactive metals, strong bases, most organic compounds.
- 10.6 Hazardous decomposition products:** Lead compounds and sulfuric acid fumes may be released during a fire involving the product

## Section 11 Toxicologic information

### 11.1 Information on toxicological effects:

This information does not apply to the undamaged VRLA batteries. It is of relevance if the battery is broken and the components are released to the environment.

**Acute toxicity:** Not classified

#### Antimony (7440-36-0)

LD50 oral rat	7 g/kg
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#### 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:**  
damage.

Causes severe skin burns and eye

**Serious eye damage/irritation:**

Causes severe eye damage, category1, implicit

**Respiratory or skin sensitization:**

Not

classified **Germ cell mutagenicity:**

Not

classified **Carcinogenicity:**

Not

classified

**Reproductive toxicity:**

May damage fertility. May damage the unborn child. May cause harm to breast-fed children.

**STOT- single exposure:**

classified

Not

**STOT-repeated exposure:**

Causes damage to organs through prolonged or repeated exposure.

**Aspiration hazard:**

classified

Not

## Section 12 Ecological information

### 12.1 Toxicity:

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



Acute toxicity		Time	Species	Evaluation	Remarks
LC50	440 µg/L	96h	Fish	N/A	Species: Cyprinus carpio [semi-static])
LC50	1170 µg/L	96h	Fish	N/A	Species: Oncorhynchus mykiss [flow{hroughl)
EC50	600 µg/L	48h	Daphnia	N/A	Species: water flea

#### Sulfuric Acid (CAS: 7664-93-9):

Acute toxicity		Time	Species	Evaluation	Remarks
LC50	82 mg/L	24h	Fish	N/A	Exposure time:24 h - Species: Brachydanio rerio [static]

### 12.2 Persistence and degradability:

Not available.

### 12.3 Bioaccumulative potential:

BCF fish 1; no bioaccumulation

### 12.4 Mobility in soil:

Not available.

### 12.5 Results of PBT & vPvB assessment:

Not applicable

### 12.6 Other adverse effects:

Not available.

## Section 13 Disposal considerations

### 13.1 Waste treatment methods:

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Dispose of contents/container to comply with applicable local, national and international regulations.

Recycling the product is recommended. Waste must be disposed of in accordance with federal, state, and local environmental control regulations.

Consult the appropriate local waste disposal expert about waste disposal. Since emptied containers retain product residue, follow label warnings even after container is emptied.

European waste code :16 06 01- - lead batteries



Section 14 Transport information			
	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number	2794	2794	2800
UN Proper shipping name	BATTERIES, WET, FILLED WITH ACID	BATTERIES, WET, FILLED WITH ACID	BATTERIES, WET, FILLED WITH ACID
Transport hazard Class	8	8	8
Packaging group	-	-	-
Environmental hazards	No	No	No
Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable	Not applicable	Not applicable

#### Special precautions for user

##### Land transport (ADR)

Classification code (ADR) : C11  
 Special provisions (ADR) : 295,598  
 Limited quantities (ADR) : 1L  
 Excepted quantities (ADR) : E0  
 Packing instructions (ADR) : P800,P801a  
 Special packing provisions (ADR) : PP16  
 Transport category (ADR) : 3  
 Hazard identification number (Kemler No.) : 80  
 Orange plates :

80

2794

Tunnel restriction code (ADR)  
 EAC code

E  
 2R

##### Sea transport (IMDG)

Special provisions (IMDG) : 295  
 Limited quantities (IMDG) : 1 L  
 Excepted quantities (IMDG) : E0  
 Packing instructions (IMDG) : P801  
 EmS-No. (Fire) : F-A  
 EmS-No. (Spillage) : S-B  
 Stowage category (IMDG) : A

##### Air transport

PCA Excepted quantities (IATA) : E0  
 PCA Limited quantities (IATA) : Forbidden  
 PCA limited quantity max net quantity (IATA) : Forbidden  
 PCA packing instructions (IATA) : 870  
 PCA max net quantity (IATA) : 30Kg  
 CAO packing instructions (IATA) : 870  
 CAO max net quantity (IATA) : No limit  
 Special provisions (IATA) : A51, A164, A183  
 ERG code (IATA) : 8L

## Section 15 Regulation information

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

Relevant information regarding authorization:	Not applicable.
Relevant information regarding restriction:	Not applicable.
Other EU regulations:	Employment restrictions concerning young person must be observed. For use only by technically qualified individuals.

#### Other National regulations:

##### Germany

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

##### Netherlands

SZW-lijst van kankerverwekkende stoffen : Sulfuric acid is listed

SZW-lijst van mutagene 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

### 16.1 Indication of changes:

Version 2.0 Amended by (EU) 2015/830

### 16.2 Training instructions:

Not applicable.

### 16.3 Further information:

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

### 16.4 Notice to reader:

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

This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

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

