

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

1.1. Product identifier

Product form : Mixture

Product name : VRLA AGM MF, High Performance & Conventional Series - Dry Charged Lead Battery(Without Acid)

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 (Motorcycle and Powersports Battery)

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Western Electrical Corporation Limited

RM1607, Block A3, Poly Tal To Wun Plaza, No.290 Hanxi Avenue, Panyu,
Guangzhou 511495, China.

Tel: +86 20 84795527

Email: technical@western-battery.com

1.4. Emergency telephone number

Emergency number : +86 180 2245 6623 (09:00 – 18:00 Monday to Friday)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

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]

Xn; N; Repr.Cat.1; R60-61-50/53

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)



GHS08

GHS09

Signal word (CLP) : Danger

Hazard statements (CLP) : 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 Directive 67/548/EEC |
|----------|---|---------|--|
| Lead | (CAS No) 7439-92-1 (EC no) 231-100-4 (REACH-no) not available | 89 - 92 | Repr.Cat.1; R60 Repr.Cat.1; R61 Xn; R48/20/22 N; R50/53 |
| Antimony | (CAS No) 7440-36-0 (EC no) 231-146-5 (REACH-no) not available | 0,2 | Not classified |

| 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 | 89 - 92 | Repr. 1A, H360 STOT RE 1, H372 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10) |
| Antimony | (CAS No) 7440-36-0 (EC no) 231-146-5 (REACH-no) not available | 0,2 | Not classified |

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. |

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

| | |
|--------------------------------------|--|
| Symptoms/injuries after inhalation | : In case of repeated or prolonged exposure : May cause respiratory irritation. |
| 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 | : Dust from this product may cause eyes irritation. |
| Symptoms/injuries after ingestion | : Ingestion may cause nausea and vomiting. Abdominal pain. Diarrhea. |

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 | : On burning formation of metallic fumes. Battery may rupture due to pressure buildup when exposed to excessive heat and may be result in the release of corrosive materials. |
| Hazardous decomposition products in case of fire | : Toxic gases and fumes may be released in a fire. |

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

Prevent entry to sewers and public waters.

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. Wet clean or vacuum up solids.
Methods for cleaning up : Use clean-up methods that avoid dust generation (vacuum wet). Collect all waste in suitable and labelled containers and dispose according to local legislation.

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. Proper grounding procedures to avoid static electricity should be followed. Non-static creating clothing and conductive shoes should be worn.
Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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) | | |
|------------------|--|--|
| Austria | MAK (mg/m ³) | 0,1 mg/m ³ (inhalable fraction) |
| Austria | MAK Short time value (mg/m ³) | 0,4 mg/m ³ (inhalable fraction) |
| Bulgaria | OEL TWA (mg/m ³) | 0,05 mg/m ³ |
| Croatia | GVI (granična vrijednost izloženosti) (mg/m ³) | 0,15 mg/m ³ |
| Cyprus | OEL TWA (mg/m ³) | 0,15 mg/m ³ |
| Czech Republic | Expoziční limity (PEL) (mg/m ³) | 0,05 mg/m ³ |
| Denmark | Grænseværdie (langvarig) (mg/m ³) | 0,05 mg/m ³ (dust, fume and powder) |
| Estonia | OEL TWA (mg/m ³) | 0,1 mg/m ³ (total dust) 0,05 mg/m ³ (respirable dust) |
| Finland | HTP-arvo (8h) (mg/m ³) | 0,1 mg/m ³ (all works) |
| France | VME (mg/m ³) | 0,1 mg/m ³ (restrictive limit) |
| Germany | TRGS 903 (BGW) | 300 µg/l (Medium: whole blood - Time: no restriction - Parameter: Lead (women age below 45 years) 400 µg/l (Medium: whole blood - Time: no restriction - Parameter: Lead (women 45 years and older) |
| Gibraltar | OEL TWA (mg/m ³) | 0,15 mg/m ³ |
| Greece | OEL TWA (mg/m ³) | 0,15 mg/m ³ |
| Hungary | AK-érték | 0,15 mg/m ³ |

Dry Charge Lead Battery

Material Safety Data Sheet

According to Regulation (EC) No. 453/2010

| Lead (7439-92-1) | | |
|----------------------|--|--|
| Ireland | OEL (8 hours ref) (mg/m ³) | 0,15 mg/m ³ |
| Ireland | OEL (15 min ref) (mg/m ³) | 0,45 mg/m ³ (calculated) |
| Italy | OEL TWA (mg/m ³) | 0,075 mg/m ³ |
| Latvia | OEL TWA (mg/m ³) | 0,005 mg/m ³ |
| Lithuania | IPRV (mg/m ³) | 0,15 mg/m ³ (inhalable fraction) 0,07 mg/m ³ (respirable fraction) |
| Luxembourg | OEL TWA (mg/m ³) | 0,15 mg/m ³ |
| Poland | NDS (mg/m ³) | 0,05 mg/m ³ |
| Portugal | OEL TWA (mg/m ³) | 0,15 mg/m ³ (mandatory indicative limit value) |
| Romania | OEL TWA (mg/m ³) | 0,05 mg/m ³ |
| Romania | OEL STEL (mg/m ³) | 0,10 mg/m ³ |
| Slovakia | NPHV (priemerná) (mg/m ³) | 0,15 mg/m ³ |
| Slovenia | OEL TWA (mg/m ³) | 0,1 mg/m ³ (inhalable fraction) |
| Slovenia | OEL STEL (mg/m ³) | 0,4 mg/m ³ (inhalable fraction) |
| Spain | VLA-ED (mg/m ³) | 0,15 mg/m ³ |
| Sweden | nivågränsvärde (NVG) (mg/m ³) | 0,1 mg/m ³ (total inhalable dust) 0,05 mg/m ³ (total respirable dust) |
| United Kingdom | WEL TWA (mg/m ³) | 0,15 mg/m ³ |
| United Kingdom | WEL STEL (mg/m ³) | 0,45 mg/m ³ (calculated) |
| Norway | Gjennomsnittsverdier (AN) (mg/m ³) | 0,05 mg/m ³ (dust and fume) |
| Norway | Gjennomsnittsverdier (Korttidsverdi) (mg/m ³) | 0,15 mg/m ³ (dust and fume) |
| Switzerland | VME (mg/m ³) | 0,1 mg/m ³ (inhalable) |
| Switzerland | VLE (mg/m ³) | 0,8 mg/m ³ (inhalable) |
| Australia | TWA (mg/m ³) | 0,15 mg/m ³ (dust and fume) |
| Canada (Quebec) | VEMP (mg/m ³) | 0,05 mg/m ³ |
| USA - ACGIH | ACGIH TWA (mg/m ³) | 0,05 mg/m ³ |
| USA - IDLH | US IDLH (mg/m ³) | 100 mg/m ³ |
| USA - NIOSH | NIOSH REL (TWA) (mg/m ³) | 0,050 mg/m ³ |
| USA - OSHA | OSHA PEL (TWA) (mg/m ³) | 50 µg/m ³ |
| Antimony (7440-36-0) | | |
| Austria | MAK (mg/m ³) | 0,5 mg/m ³ (inhalable fraction) |
| Austria | MAK Short time value (mg/m ³) | 5 mg/m ³ (inhalable fraction) |
| Belgium | Limit value (mg/m ³) | 0,5 mg/m ³ |
| Bulgaria | OEL TWA (mg/m ³) | 0,5 mg/m ³ |
| Croatia | GVI (granična vrijednost izloženosti) (mg/m ³) | 0,5 mg/m ³ |
| Czech Republic | Expoziční limity (PEL) (mg/m ³) | 0,5 mg/m ³ |
| Denmark | Grænseværdie (langvarig) (mg/m ³) | 0,5 mg/m ³ (powder) |
| Estonia | OEL TWA (mg/m ³) | 0,5 mg/m ³ |
| Finland | HTP-arvo (8h) (mg/m ³) | 0,5 mg/m ³ |
| France | VME (mg/m ³) | 0,5 mg/m ³ |
| Greece | OEL TWA (mg/m ³) | 0,5 mg/m ³ |
| Hungary | AK-érték | 0,5 mg/m ³ |
| Hungary | CK-érték | 2 mg/m ³ |
| Ireland | OEL (8 hours ref) (mg/m ³) | 0,5 mg/m ³ |
| Ireland | OEL (15 min ref) (mg/m ³) | 1,5 mg/m ³ (calculated) |
| Latvia | OEL TWA (mg/m ³) | 0,2 mg/m ³ (metallic dust) |
| Lithuania | IPRV (mg/m ³) | 0,5 mg/m ³ |
| Netherlands | Grenswaarde TGG 8H (mg/m ³) | 0,5 mg/m ³ |
| Poland | NDS (mg/m ³) | 0,5 mg/m ³ |
| Portugal | OEL TWA (mg/m ³) | 0,5 mg/m ³ |
| Romania | OEL TWA (mg/m ³) | 0,20 mg/m ³ |
| Romania | OEL STEL (mg/m ³) | 0,50 mg/m ³ |

| Antimony (7440-36-0) | | |
|----------------------|---|---|
| Slovakia | NPHV (priemerná) (mg/m ³) | 0,5 mg/m ³ (total dust) |
| Slovenia | OEL TWA (mg/m ³) | 0,5 mg/m ³ (inhalable fraction) |
| Slovenia | OEL STEL (mg/m ³) | 2 mg/m ³ (inhalable fraction) |
| Spain | VLA-ED (mg/m ³) | 0,5 mg/m ³ |
| Sweden | nivågränsvärde (NVG) (mg/m ³) | 0,25 mg/m ³ (total inhalable dust) |
| United Kingdom | WEL TWA (mg/m ³) | 0,5 mg/m ³ |
| United Kingdom | WEL STEL (mg/m ³) | 1,5 mg/m ³ (calculated) |
| Norway | Gjennomsnittsverdier (AN) (mg/m ³) | 0,5 mg/m ³ |
| Norway | Gjennomsnittsverdier (Korttidsverdi) (mg/m ³) | 1,5 mg/m ³ |
| Switzerland | VME (mg/m ³) | 0,5 mg/m ³ (inhalable) |
| Australia | TWA (mg/m ³) | 0,5 mg/m ³ |
| Canada (Quebec) | VEMP (mg/m ³) | 0,5 mg/m ³ |
| USA - ACGIH | ACGIH TWA (mg/m ³) | 0,5 mg/m ³ |
| USA - IDLH | US IDLH (mg/m ³) | 50 mg/m ³ |
| USA - NIOSH | NIOSH REL (TWA) (mg/m ³) | 0,5 mg/m ³ |
| USA - OSHA | OSHA PEL (TWA) (mg/m ³) | 0,5 mg/m ³ |

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 | : Bluish grey metal. |
| Odour | : No data available |
| Odour threshold | : No data available |
| pH | : No data available |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Melting point | : 252,2222 - 360 °C |
| Freezing point | : No data available |
| Boiling point | : 1380 °C |
| Flash point | : Non-flammable |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : Not applicable |
| Vapour pressure | : No data available |
| Relative vapour density at 20 °C | : No data available |
| Relative density | : No data available |
| Density | : 9,6 - 11,3 g/m ³ |
| Solubility | : No data available |
| 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. If battery ruptures, avoid contact with organic materials and alkaline materials.

10.6. Hazardous decomposition products

Toxic fumes may be released.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| | |
|--|---|
| Acute toxicity | : Not classified |
| Skin corrosion/irritation | : Not classified |
| Serious eye damage/irritation | : Not classified |
| 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]) |
| 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]) |

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

| Dry Charge Lead Battery | |
|-------------------------|-------------|
| Ecology - soil | persistent. |

12.5. Results of PBT and vPvB assessment

| Dry Charge Lead Battery | |
|---------------------------|--|
| Results of PBT assessment | The PBT and vPvB criteria of Annex XIII to the Regulation does not apply to inorganic substances |

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. |

SECTION 14: Transport information

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

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (All modes) : Not applicable

14.3. Transport hazard class(es)

Transport hazard class(es) : Not applicable

14.4. Packing group

Packing group (All modes) : Not applicable

14.5. Environmental hazards

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

14.6. Special precautions for user

14.6.1. Overland transport

Subject to ADR : No

14.6.2. Transport by sea

Subject to IMDG : No

14.6.3. Air transport

Subject to IATA : No

14.6.4. Inland waterway transport

Subject to ADN : No

14.6.5. Rail transport

Subject to RID : No

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
Dry Charge 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

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 |
| STOT RE 1 | Specific target organ toxicity (repeated exposure) Category 1 |
| 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 |
| 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 |
| 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