

# SAFETY DATA SHEET

## AC DELCO SEALED MAINTENANCE FREE & LOW MAINTENANCE ACCESSIBLE BATTERIES

Infosafe No.: HXUOJ  
Issued Date: 14/11/2016  
Issued by: AC DELCO

### 1. IDENTIFICATION

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GHS Product Identifier

AC DELCO SEALED MAINTENANCE FREE & LOW MAINTENANCE ACCESSIBLE BATTERIES

Company Name

AC DELCO

Address

191 Salmon Street Port Melbourne Melbourne

Vic 3207 Australia

Emergency phone number

1800 638 556 (24hrs)

Recommended use of the chemical and restrictions on use

Electric storage battery.

### 2. HAZARD IDENTIFICATION

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GHS classification of the substance/mixture

Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Eye Damage/Irritation: Category 1

Skin Corrosion/Irritation: Category 1A

Signal Word (s)

DANGER

Hazard Statement (s)

H314 Causes severe skin burns and eye damage.

Pictogram (s)

Corrosion



Precautionary statement – Prevention

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash contaminated skin thoroughly after handling

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement – Response

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position 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.

P310 Immediately call a POISON CENTER or doctor/physician.

P363 Wash contaminated clothing before reuse.

Precautionary statement – Storage

P405 Store locked up.

Precautionary statement – Disposal

P501 Dispose of contents/container to an approved waste disposal plant.

#### IMPORTANT NOTE(S)

Used battery may also contain lead contaminated acid. Lead sulfate is often seen in the plates/electrodes of car batteries, as it is formed when the battery is discharged. When the battery is recharged, then the lead sulfate is transformed back to metallic lead and sulfuric acid on the negative terminal or lead dioxide and sulfuric acid on the positive terminal. Lead sulfate is toxic by inhalation, ingestion and skin contact. It is classified as a known or presumed human reproductive or developmental toxicant and causes damage to organs. Lead and lead sulphate is classified as very toxic to aquatic life with long lasting effects.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Ingredients

Name	CAS	Proportion
Lead	7439- 92- 1	50- 60 %
Sulphuric acid	7664- 93- 9	12- 18 %
Ingredients determined not to be hazardous		Balance

### 4. FIRST-AID MEASURES

#### Inhalation

Not considered a potential route of exposure for intact product, when used as intended. However, if exposure occurs with battery contents, remove affected person from contaminated area. Apply artificial respiration if not breathing. Seek medical attention.

#### Ingestion

Not considered a potential route of exposure for intact product, when used as intended. However, if exposure occurs with battery contents, do not induce vomiting. Wash out mouth thoroughly with water. Seek immediate medical attention.

#### Skin

Not considered a potential route of exposure for intact product, when used as intended. However, if exposure occurs with battery contents, remove all contaminated clothing immediately. Wash gently and thoroughly with water and non-abrasive soap for 15 minutes. Ensure contaminated clothing is washed before re-use or discard. Seek immediate medical attention.

#### Eye contact

Not considered a potential route of exposure for intact product, when used as intended. However, if exposure occurs with battery contents, if in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Seek immediate medical attention.

#### First Aid Facilities

Eye wash fountain, safety shower and normal washroom facilities.

#### Advice to Doctor

Treat symptomatically.

#### Other Information

For advice in an emergency, contact a Poisons Information Centre or a doctor at once. (131 126)

### 5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use appropriate fire extinguisher for surrounding environment. If a battery ruptures, use dry chemical, water spray or carbon dioxide.

#### Unsuitable Extinguishing Media

Do not use water jet.

#### Hazards from Combustion Products

Under fire conditions this product may emit toxic and/or irritating fumes and gases including lead, lead compounds and sulfuric acid fumes.

#### Specific Hazards Arising From The Chemical

The solution inside the battery is not combustible. The plastic case will burn if exposed to fire.

Hydrogen and oxygen gases are produced during normal battery operation and charging. These gases escape through the battery vents and may form an explosive atmosphere around the battery if ventilation is poor.

#### Hazchem Code

2R

#### Decomposition Temperature

Not available

#### Precautions in connection with Fire

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. In case of fire the product may be violently or explosively reactive. Use water spray to disperse vapours. This product should be prevented from entering drains and watercourses.

## 6. ACCIDENTAL RELEASE MEASURES

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#### Emergency Procedures

Corrosive liquid within the battery. If there is spillage: Evacuate all unprotected personnel. Do not allow contact with skin and eyes. Do not breathe mist/vapour. It is essential to wear self-contained breathing apparatus (S.C.B.A) and full personal protective equipment and clothing to prevent exposure. Avoid exposure to spillage by collecting the material using vacuum and transfer into suitable labelled containers for subsequent recycling or disposal. Dispose of waste according to applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.

## 7. HANDLING AND STORAGE

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#### Precautions for Safe Handling

Corrosive liquid within the battery. Attacks skin and eyes. Causes burns. Handle batteries cautiously to avoid spills. Do not short terminal. Wear suitable protective clothing, gloves and eye/face protection when handling. Use in designated areas with adequate ventilation. Avoid breathing in vapours, mist or fumes. Keep containers closed when not in use. Ensure a high level of personal hygiene is maintained when using this product, that is, always wash hands after handling, and before eating, drinking, smoking or using the toilet facilities.

Use a battery carrier to lift battery or place hands at opposite corners to avoid spilling acid through the vents. Avoid contact with internal components of batteries. Do not tilt batteries to an angle greater than 45 degrees. Do not smoke when working near a battery. Avoid direct conductive connection across positive and negative terminals to prevent short circuit.

Acid inside the battery can contain lead/lead compounds which can be toxic to reproduction. Avoid exposure to contents of battery. Do not handle until all safety precautions have been read and understood. It is recommended that pregnant or breastfeeding women should not handle this product unless adequate exposure protection can be assured at all times. Female personnel planning pregnancy should be made aware of the potential risks.

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

Batteries must be kept in an upright position away from ignition sources. Stack batteries so as to prevent accidental contact between terminal and/or other damage to terminals or containers. Whenever feasible, store on shipping pallet or rack. Do not stack loaded pallets or racks on top of other batteries.

When batteries are completely discharged, the electrolyte will freeze when stored below -6°C. Fully charged batteries may be stored at temperatures as low as -28°C

For information on the design of the storeroom, reference should be made to Australian Standard AS 3780-2008: The storage and handling of corrosive substances. Reference should also be made to all State and Federal regulations.

#### Storage Temperatures

Min: -28°C for fully charged batteries. -6°C for completely discharged batteries.

Max: 26°C for low shelf discharge but up to 38°C is safe.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### Occupational exposure limit values

No exposure standards have been established for this material. However, the available exposure limits for ingredients are listed below:

#### Lead (dusts/fumes)

TWA: 0.15 mg/m<sup>3</sup>

#### Sulfuric acid

TWA: 1 mg/m<sup>3</sup>

STEL: 3 mg/m<sup>3</sup>

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

STEL (Short Term Exposure Limit): The average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

### Biological Limit Values

Name: Lead

Determinant: Lead in blood

Value: 30 µg/100 ml

Sampling time: Not critical

Source: American Conference of Industrial Hygienists (ACGIH).

### Appropriate Engineering Controls

None required, when used as intended.

### Respiratory Protection

None required, when used as intended. Where exposure to battery content is possible, an approved respirator with a replaceable vapor/ mist filter should be used if engineering controls are not effective in controlling airborne exposure. Refer to relevant regulations for further information concerning respiratory protective requirements.

Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

### Eye Protection

None required, when used as intended. Where exposure to battery content is possible, safety glasses with full face shield should be used. Eye protection devices should conform to relevant regulations. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

### Hand Protection

Wear gloves of impervious material, such as rubber, neoprene, vinyl coated, PVC. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken.

Occupational protective gloves should conform to relevant regulations.

Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

### Body Protection

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended for spill clean up.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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### Form

Article - Battery

### Appearance

A manufactured article cased in plastic with a sealed case, terminals and flame arrestor vent caps. Case color varies.

### Odour

Product is essentially odorless.

## Decomposition Temperature

Not available

## Melting Point

149°C for case

## Boiling Point

Not applicable

## Solubility in Water

Soluble in water (sulfuric acid)

## Specific Gravity

1.280 (25°C) (electrolyte)

## pH

< 1.0 (dilute sulfuric acid)

## Vapour Pressure

Not applicable

## Vapour Density (Air=1)

Not available

## Evaporation Rate

Not available

## Odour Threshold

Not available

## Partition Coefficient: n-octanol/water

Not available

## Density

Not available

## Flash Point

Not applicable

## Flammability

Non-flammable

## Auto-Ignition Temperature

Not applicable

## Flammable Limits - Lower

4.1% (Hydrogen gas)

## Flammable Limits - Upper

74.2% (Hydrogen gas)

## Kinematic Viscosity

Not available

## Dynamic Viscosity

Not available

## 10. STABILITY AND REACTIVITY

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## Chemical Stability

Stable under normal conditions of use.

## Reactivity and Stability

Reacts with incompatible materials.

## Conditions to Avoid

Use only approved charging methods. Avoid overcharging. Avoid short-circuiting. Avoid sparks and other ignition sources. Keep away from oxidizing and reducing materials. Do not open, break or melt the casing.

## Incompatible materials

Strong oxidizing or reducing agents.

## Hazardous Decomposition Products

Can emit highly toxic fumes when heated. Combustion can produce carbon dioxide and carbon monoxide. Will release an explosive hydrogen/oxygen gas mixture.

Oxides of lead, lead and/or lead compounds may be released. Sulfuric acid may release sulfur dioxide and/or sulfur trioxide.

Possibility of hazardous reactions

Sulfuric acid: Contact with combustibles and organic materials may cause fire and explosion. Also reacts violently with strong reducing agents, metals, sulfur trioxide gas, strong oxidizers and water. Contact with metals may produce toxic sulfur dioxide fumes and may release flammable hydrogen gas.

Hazardous Polymerization

Will not occur.

## 11. TOXICOLOGICAL INFORMATION

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Toxicology Information

No toxicity data available for this product.

Wet storage batteries are sealed articles. Exposure to lead, acid and lead contaminated acid is not anticipated during normal storage, handling and intended use or maintenance of the battery.

Battery recycling personnel should carefully follow established employer protocols when processing batteries and battery components.

Ingestion

Ingestion unlikely due to form of product. Ingestion of liquid inside the battery will cause nausea, vomiting, abdominal pain and chemical burns to the mouth, throat and stomach.

Inhalation

Inhalation of product vapours may cause irritation of the nose, throat and respiratory system.

Skin

Liquid inside the battery causes severe skin burns. Corrosive to the skin. Skin contact can cause redness, itching, irritation, severe pain and chemical burns with resultant tissue destruction.

Eye

Liquid inside the battery causes eye damage. Eye contact will cause stinging, blurring, tearing, severe pain and possible burns, necrosis, permanent damage and blindness.

Respiratory sensitisation

Not expected to be a respiratory sensitiser.

Skin Sensitisation

Not expected to be a skin sensitiser.

Germ cell mutagenicity

Not considered to be a mutagenic hazard.

Carcinogenicity

Due to the nature of the product, not considered to be a carcinogenic hazard.

Strong-inorganic-acid mists containing sulfuric acid are listed as a Group 1: Carcinogenic to humans according to International Agency for Research on Cancer (IARC).

Lead is listed as a Group 2B: Possibly carcinogenic to humans according to International Agency for Research on Cancer (IARC).

Reproductive Toxicity

Not considered to be toxic to reproduction.

STOT-single exposure

Not expected to cause toxicity to a specific target organ.

STOT-repeated exposure

Due to the nature of the product, not expected to cause toxicity to a specific target organ.

Aspiration Hazard

Not expected to be an aspiration hazard.

## 12. ECOLOGICAL INFORMATION

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Ecotoxicity

No ecological data available for this material.

Persistence and degradability

Not available

Mobility

Not available

Bioaccumulative Potential

Not available

Other Adverse Effects

Not available

Environmental Protection

Do not discharge this material into waterways, drains and sewers.

### 13. DISPOSAL CONSIDERATIONS

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Disposal considerations

The lead, plastic and electrolyte (sulphuric acid) in used lead acid batteries can be recycled. Wet storage batteries are recyclable and should be turned over to a licensed battery recycler. Do not incinerate.

Do not flush lead contaminated acid into the sewer. The disposal of the spilled or waste material must be done in accordance with applicable local and national regulations.

### 14. TRANSPORT INFORMATION

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Transport Information

Road and Rail Transport (ADG Code):

This material is classified as a Class 8 Corrosive Substances Dangerous Goods

Class 8 Dangerous Goods are incompatible in a placard load with any of the following:

- Class 1: Explosives

- Division 4.3: Dangerous when wet Substances

- Division 5.1: Oxidising substances

- Division 5.2: Organic peroxides

- Class 6, Toxic or Infectious Substances, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids

Class 7: Radioactive materials unless specifically exempted

and are incompatible with food and food packaging in any quantity.

Strong acids must not be loaded in the same freight container or on the same vehicle with strong alkalis. Packing Group I and II acids and alkalis should be considered as strong.

Marine Transport (IMO/IMDG):

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

UN No.: 2794

Proper Shipping Name: BATTERIES, WET, FILLED WITH ACID

Class: 8

EMS No.: F-A, S-B

Special provisions: 295

Air Transport (ICAO/IATA):

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

UN No: 2794

Proper Shipping Name: Batteries, wet, filled with acid

Class: 8

Label: Corrosive

Packing Instruction: 870 (For passenger and cargo aircraft)

Packing Instruction: 870 (For cargo aircraft only)

Special provisions: A51, A164, A183, A802

U.N. Number

2794

UN proper shipping name

BATTERIES, WET, FILLED WITH ACID

Transport hazard class(es)

8

Hazchem Code

2R

Special Precautions for User

Not available

IERG Number

37

IMDG Marine pollutant

No

Transport in Bulk

Not available

## 15. REGULATORY INFORMATION

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Regulatory information

Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Not classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) (exempted).

Poisons Schedule

Not Scheduled

## 16. OTHER INFORMATION

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Date of preparation or last revision of SDS

SDS reviewed: November 2016

SDS superseded: March 2012

References

Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.

Standard for the Uniform Scheduling of Medicines and Poisons.

Australian Code for the Transport of Dangerous Goods by Road & Rail.

Model Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

Workplace exposure standards for airborne contaminants, Safe work Australia.

American Conference of Industrial Hygienists (ACGIH).

Globally Harmonised System of classification and labelling of chemicals.

User Information

THE PRINTED FORM OF THIS MSDS IS CONSIDERED AN 'UNCONTROLLED' DOCUMENT ONE WEEK FROM THE PRINT DATE.

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## END OF SDS

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