SAFETY DATA SHEET

MAINTENANCE FREE BATTERY: DJW, DJM, DJ, LP, LPC, LPL,TC, LPF, LPG & FT & STD ST & GL SERIES

Infosafe No.: MU4U9
ISSUED Date : 14/02/2022
ISSUED by: AC DELCO

Section 1 - Identification

Product Identifier
MAINTENANCE FREE BATTERY: DJW, DJM, DJ, LP, LPC, LPL,TC, LPF, LPG & FT & STD ST & GL SERIES

Company Product Codes / Numbers / Unique Identifiers
ACTC12-105,
ACTC12-120

Company Name
AC DELCO

Address
Australia: 80 Turner street, Port Melbourne, Vic
New Zealand: 2/118 Savill Drive, Mangere East, Auckland
www.acdelco.com.au

Telephone/Fax Number
Tel: AUS: +61 3 9647 1111

Emergency Phone Number
Australia: 1800 638 556 (24hrs) / New Zealand: 0800 154 666 (24hrs)

Recommended use of the chemical and restrictions on use
Battery

Section 2 - Hazard(s) Identification

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.
Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)
Classified as Hazardous according to the Hazardous Substances (Hazard Classification) Notice 2020, New Zealand.
Not classified as Dangerous Goods for transport according to the New Zealand Standard NZS 5433:2020 Transport of Dangerous Goods on Land.
Corrosive to metals: Category 1
Eye damage/irritation: Category 1
Skin corrosion/irritation: Category 1A
Hazardous to the Aquatic Environment - Acute Hazard: Category 1
Hazardous to the Aquatic Environment - Long-Term Hazard: Category 1

Signal Word (s)
DANGER

Hazard Statement (s)

H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H410 Very toxic to aquatic life with long lasting effects.

Pictogram (s)
Corrosion,Environment

Precautionary Statement – Prevention
P234 Keep only in original packaging.
P260 Do not breathe dusts or mists.
P264 Wash skin thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

Precautionary Statement – Response
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 [or shower].
P363 Wash contaminated clothing before reuse.
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.
P310 Immediately call a POISON CENTER/doctor.
P390 Absorb spillage to prevent material damage.
P391 Collect spillage.

Precautionary Statement – Storage
P405 Store locked up.
P406 Store in a corrosion resistant container with a resistant inner liner.

Precautionary Statement – Disposal
P501 Dispose of contents/container to an approved waste disposal plant.

Other Information
Sealed Lead-Acid Battery. The hazard details refer to the possible release of the product's contents. Acid inside the battery can contain lead/lead compounds.

Section 3 - Composition and Information on Ingredients

Ingredients

Name	CAS	Proportion
Lead and lead compounds		65-75 %
Sulphuric acid	7664-93-9	~20 %
Fibre glass		~5 %
Styrene, acrylonitrile, butadiene polymer	9003-56-9	0-5 %
Polypropylene	9003-07-0	0-5 %
Tin	7440-31-5	<0.5 %
calcium	7440-70-2	<0.1 %
Ingredients determined not to be hazardous		Balance

Information on Composition
The separator is made of fibre glass. The case is made of either Polypropylene or Acrylonitrile Butadine Styrene (ABS).

Section 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
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
Eyewash, safety shower and normal washroom facilities.

Advice to Doctor
Treat symptomatically.

Other Information
For advice in an emergency, contact a Poisons Information Centre (Phone Australia 131 126; New Zealand 0800 764 766) or a doctor at once.

Section 5 - Firefighting Measures

Suitable Extinguishing Media
Carbon dioxide, foam, dry chemical.

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 oxides of sulfur and lead, carbon monoxide and dioxide, sulfuric acid mist, and hydrogen sulfide.

Specific hazards arising from the chemical
Sealed batteries can emit hydrogen only if over charged (float voltage> 2.4 VPC). The gas enters the air through the vent caps. To avoid the chance of a fire or explosion, keep sparks and other sources of ignition away from the battery.

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.
Beware of acid splatter during water application and wear acid-resistant clothing, gloves, face and eye protection.

Section 6 - Accidental Release Measures

Emergency Procedures
Corrosive liquid within the battery. Do not allow contact with skin and eyes. Do not breathe vapours. It is essential to wear self-contained breathing apparatus (S.C.B.A) and full personal protective equipment and clothing to prevent exposure. Increase ventilation. If possible contain the spill.

Spill or Leak Procedures:

Stop flow of material, contain/absorb small spills with dry sand, earth, and vermiculite. Do not use combustible materials. 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 ofun-neutralized acid to sewer. Collect the material and place into a suitable labelled container.

ispose of waste according to the 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.

Section 7 - Handling and Storage

Precautions for Safe Handling
Should not be subject to strong mechnanical shock. Protect from physical damage. No hazards under normal usage as the sulfuric acid is immobilized in a gel structure.

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 mixing and using. 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.

Acid inside the battery can contain lead/lead compounds which can be toxic to reproduction. Avoid expoure 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.

Charging:
There is a possible risk of electric shock from charging equipment and from strings of series connected batteries, whether or not being charged. Shut-off power to chargers whenever not in use and before detachment of any circuit connections. Batteries being charged will generate and release flammable hydrogen gas. Charging space should be ventilated. Keep battery vent caps in position. Prohibit smoking and avoid creation of flames and sparks nearby. Wear face and eye protection when near batteries being charged.

Conditions for safe storage, including any incompatibilities
Store in a cool, dry, well-ventilated area. Protect from sparks and dust. Store away from direct sunlight, humidity, incompatible materials, combustible materials and from activities which may create flames, sparks, or heat. Keep away from metallic objects that could bridge the terminals on a battery and create a dangerous short-circuit. Keep containers closed when not in use, securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Store in original packages as approved by manufacturer.
For information on the design of the storeroom, reference should be made to Australian Standard AS 3780 - The storage and handling of corrosive substances.

Corrosiveness
Electrolyte: May be corrosive to metals.

Section 8 - Exposure Controls and Personal Protection

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

Sulfuric acid (Australia)
TWA: 1 mg/m³ , STEL: 3 mg/m³
Sulfuric acid (New Zealand)
TWA: 0.1 mg/m³
Note: Carc. 1A
Lead, inorganic dusts & fumes (as Pb) (Australia and New Zealand)
TWA: 0.05 mg/m³
Note: Carc. 1B
Tin metal (inorganic) (Australia and New Zealand)
TWA: 2 mg/m³

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.
Source: Safe Work Australia and Workplace Exposure Standards and Biological Exposure Indices, New Zealand.

Biological Monitoring
Name: Lead
Determinant: Lead in blood
Value: 200 µg/L
Sampling time: Not critical
Source: American Conference of Industrial Hygienists (ACGIH).

Blood lead level should not be more than:
(i) for females not of reproductive capacity and males: 50 microg/dL (2.42 micromol/L); or

(ii) for females of reproductive capacity: 20 microg/dL (0.97 micromol/L); or

(iii) for females who are pregnant or breastfeeding: 15 microg/dL (0.72 micromol/L)

Source: Model Work Health and Safety Regulations, Australia.

For all workers; the preferred blood lead level is 1.5 micromol/L. The values must be more stringent for pregnant women or women planning to become pregnant. Workers will be suspended if a single blood lead result is equal to or greater than 2.4 micromol/L. A worker can return to work if their blood levels achieve less than or equal to 1.93 micromol/litre whole blood.
Source: Workplace Exposure Standards and Biological Exposure Indices, New Zealand.

Control Banding
Not available

Engineering Controls
None required, when used as intended. If mechanical ventilation is used, components must be acid-resistant. Where exposure to battery content is possible: Use with good general ventilation. If mists or vapours are produced, local exhaust ventilation should be used. Handle batteries cautiously. If battery case is damaged, avoid bodily contact with internal components. Wear protective clothing, eye and face protection, when charging or handling batteries,

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 and Face 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 (series) - Eye Protectors for Industrial Applications.

Hand Protection
Industrial application: Wear gloves of impervious material such as rubber or plastic acid-resistant gloves with elbow-length gauntlet. 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.

Thermal Hazards
No further relevant information available.

Body Protection
Suitable protective work wear. Acid-resistant apron, clothing and boots are recommended especially where large quantities are handled.

Section 9 - Physical and Chemical Properties

Properties	Description	Properties	Description
Form	Article - Battery	**Appearance**	Sealed article (Solid) containing electrolyte
Odour	Not available	**Melting Point**	Not available
Boiling Point	Not available	**Decomposition Temperature**	Not available
Solubility in Water	Not available	**Specific Gravity**	Not available
pH	Not available	**Vapour Pressure**	Not available
Relative Vapour Density (Air=1)	Not available	**Evaporation Rate**	Not available
Odour Threshold	Not available	**Viscosity**	Not available
Partition Coefficient: n-octanol/water (log value)	Not available	**Flash Point**	Not Applicable
Flammability	Non-flammable	**Auto-Ignition Temperature**	Not available
Flammable Limits - Lower	Not available	**Flammable Limits - Upper**	Not available

Section 10 - Stability and Reactivity

Reactivity
Reacts with incompatibles.

Chemical Stability
Stable under normal conditions of use.

Possibility of hazardous reactions
Not available

Conditions to Avoid
Prohibit smoking, sparks, etc. from battery charging area. Avoid mixing acid with other chemical sources of ignition. Mechanical abuse and electrical abuse.

Incompatible Materials
Lead; Potassium, carbides, sulfides, peroxides, phosphorus, sulfurs, ketone, ester, petrolatum .
Sulphuric acid: Reactive metals, strong bases, most organic compounds.

Hazardous Decomposition Products
Under fire conditions this product may emit toxic and/or irritating fumes and gases including oxides of sulfur and lead, carbon monoxide and dioxide, sulfuric acid mist, and hydrogen sulfide.

Hazardous Polymerization
Will not occur.

Section 11 - Toxicological Information

Toxicology Information
No toxicity data available for this product.

Ingestion
Unlikely due to form of product. For battery contents: will cause nausea, vomiting, abdominal pain and chemical burns to the mouth, throat and stomach.

Inhalation
Unlikely due to form of product. For battery contents: Inhalation of mist or vapour will result in respiratory irritation and possible harmful corrosive effects including burns, lesions of the nasal septum, pulmonary edema, and scarring of tissue.

Skin
For contact with battery contents: 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
For contact with electrolyte: Causes serious 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
Not considered to be a carcinogenic hazard.

Acid mists, strong inorganic is 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).
Polypropylene is listed as a Group 3: Not classifiable as to carcinogenicity 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
Not expected to cause toxicity to a specific target organ.

Aspiration Hazard
Not expected to be an aspiration hazard.

Section 12 - Ecological Information

Ecotoxicity
Lead and lead compounds: Very toxic to aquatic life with long lasting effects.

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.

Hazardous to the Ozone Layer
This product is not expected to deplete the ozone layer.

Section 13 - Disposal Considerations

Disposal Considerations
The disposal of the spilled or waste material must be done in accordance with applicable local and national regulations. Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes including emptied containers are controlled wastes and should be disposed of in accordance with all applicable local and national regulations. To

minimise personal exposure to the chemical, refer to Section 8 — Exposure controls and personal protection.
Wet storage batteries are recyclable and should be turned over to a licensed battery recycler. Do not flush contaminated electrolyte into sewers. Return whole scrap batteries to the distributor, manufacturer or a licensed battery recycler.
Spent batteries: Send to secondary lead smelter for recycling.
Electrolyte: Place neutralized slurry into sealed acid resistant containers and dispose of as hazardous waste, as applicable. Large water-diluted spills, after neutralization and testing, should be managed in accordance with approved local, state, and federal requirements.

Section 14 - Transport Information

Transport Information
Road and rail transport:
Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition) and Not classified as Dangerous Goods for transport according to the New Zealand Standard NZS 5433: 2020 Transport of Dangerous Goods on Land.
Product is not classified as dangerous goods according to special provision 238 (b), UN 2800 - road transportation: Non-spillable batteries are not subject to this Code if, at a temperature of 55 °C, the electrolyte will not flow from a ruptured or cracked case and there is no free liquid to flow and if, when packaged for transport, the terminals are protected from short circuit.
The batteries comply with the vibration and pressure differential tests found in 49 CFR 173.159(d) (3) and crack test found at 49 CFR 173.159(d) (4).

Sea transport
Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.
Product is not classified dangerous goods according to special provision 238 (b), UN 2800 - Sea transportation: Non-spillable batteries are not subject to the provisions of this Code if, at a temperature of 55°C, the electrolyte will not flow from a ruptured or cracked case and there is no free liquid to flow and if, when packaged for transport, the terminals are protected from short circuit.

Air transport
Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.
Product is not classified dangerous goods according to special provision A67 - UN 2800 - air transportation:
Non-spillable batteries are not subject to these regulations when carried as cargo if, at a temperature of 55°C, the electrolyte will not flow from a ruptured or cracked case. The battery must not contain any free or unabsorbed liquid. Any electrical battery or battery powered device, equipment or vehicle having the potential of dangerous evolution of heat must be prepared for transport so as to prevent:
(a) a short circuit (e.g. in the case of batteries, by the effective insulation of exposed terminals; or in the case of equipment, by disconnection of the battery and protection of exposed terminals); and
(b) unintentional activation
The words "Not Restricted" and the Special Provision number must be included in the description of the substance on the Air Waybill as required by 8.2.6 when an Air Waybill is issued.

ADG U.N. Number
None Allocated

ADG Proper Shipping Name
None Allocated

ADG Transport Hazard Class
None Allocated

Special Precautions for User
Not available

IMDG Marine pollutant
Yes

Transport in Bulk
Not available

Section 15 - Regulatory Information

Regulatory Information
Australia
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)
New Zealand
This product is a "Manufactured article" and is therefore exempt from the Hazardous Substances (Hazard Classification) Notice 2020, New Zealand.

Poisons Schedule
Not Scheduled

Montreal Protocol
Not listed

Stockholm Convention
Not listed

Rotterdam Convention
Not listed

International Convention for the Prevention of Pollution from Ships (MARPOL)
Not available

Agricultural and Veterinary Chemicals Act 1994
Not available

Basel Convention
Not available

Section 16 - Any Other Relevant Information

Date of Preparation
SDS created: February 2022

Version Number
1.0

Literature References
Australia
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.
Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.
Code of Practice for Supply Diversion into Illicit Drug Manufacture.
National Code of Practice for Chemicals of Security Concern.
Agricultural Compounds and Veterinary Chemicals Act.
International Agency for Research on Cancer (IARC) Monographs.
Montreal Protocol on Substances that Deplete the Ozone Layer.
Stockholm Convention on Persistent Organic Pollutants (POPs).
Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.
Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal.
International Air Transport Association (IATA) Dangerous Goods Regulations.
International Maritime Dangerous Goods (IMDG) Code.
Workplace exposure standards for airborne contaminants.
Adopted biological exposure determinants, American Conference of Industrial Hygienists (ACGIH).
Globally Harmonised System of Classification and Labelling of Chemicals (7th revised edition).
Code of Practice: Managing Noise and Preventing Hearing Loss at Work.

New Zealand
Hazardous Substances and New Organisms Act (1996).

Health and Safety at Work (Hazardous Substances) Regulations (2017).
Workplace Exposure Standards and Biological Exposure Indices.
Agricultural Compounds and Veterinary Medicines Act 1997.
Montreal Protocol on Substances that Deplete the Ozone Layer.
Stockholm Convention on Persistent Organic Pollutants (POPs).
Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.
Transport of Dangerous goods on land NZS 5433.
Recommendations on the Transport of Dangerous Goods - Model Regulations.
Dangerous Goods Emergency Action Code List.
Hazardous Substances (Safety Data Sheets) Notice 2017 (EPA Consolidation)
Assigning a hazardous substance to a group standard.
Adopted biological exposure determinants, American Conference of Industrial Hygienists (ACGIH).

END OF SDS