SAFETY DATA SHEET

Revision Date: Jan 15th, 2015

SECTION 1: PRODUCT IDENTIFICATION

Product Identifier:	Dry Charged & Conventional Battery
Other Product Name:	Dry charged, Lead-Acid battery, Conventional
Relevant Identified Uses:	Power Sport Batteries
Uses Advised Against:	Any Other Not Listed Above
Supplier:	Manufactured for Universal Power Group, Inc.
Address:	488 S Royal Lane, Coppell, TX 75019
Emergency Telephone Number:	US: 1-800-535-5053 Countries outside of US: +1-352-323-3500
Website:	www.upgi.com

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture:

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

Class 13: Non-flammable solids in non-flammable package.

Classification according to 67/548/EEC or 1999/45/EC.

Xi: Irritating

Label elements:

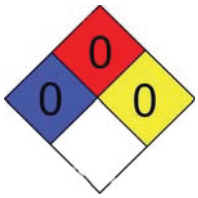
Labeling according to Regulation (EC) No 1272/2008.

Product identifier: Dry Charge Battery, Conventional

Hazard pictograms:

Xi: Irritating

NFPA:



WHMIS:

Not Regulated

Signal word: CAUTION

Hazard statements:

May be harmful in contact with skin.

Causes skin irritation.

May cause respiratory irritation.

Warning! Contains lead.

Precautionary statements:

Keep out of reach of children.

Keep containers tightly closed.

Keep away from heat, sparks, and open flame while charging batteries.

Other hazards:

Adverse human health effects and symptoms:

Inhalation: (Acute): Under normal conditions of use, no health effects are expected.

(Chronic): Repeated and prolonged exposure may cause irritation.

Skin: (Acute): Under normal conditions of use, no health effects are expected.

(Chronic): No data available.

Eye: (Acute): Under normal conditions of use, no health effects are expected. Exposure to dust may cause irritation.

(Chronic): No data available.

Ingestion: (Acute): Under normal conditions of use, no health effects are expected. Lead ingestion may cause abdominal pain, nausea, vomiting, diarrhea and severe cramping.

(Chronic): No data available.

Carcinogenic Effects: Material is an article. No health effects are expected related to normal use of this product as sold. Material does contain components that exhibit carcinogenic effects.

SECTION 3: COMPOSITION/INGREDIENTS INFORMATION

Description of the mixture:

CAS No	EC No	% [weight]	Name	WHMIS Classifications	Classification according to CLP (1272/2008)
7439-92-1	231-100-4	93%	Lead	D2A	Xn, N, T; R20/22, R33, R50, R50/53, R53, R61, R62; Repr. Cat. 1, Repr. Cat. 3; S53, S45, S60, 231-100-4 S61 except those specified elsewhere in the annex
7440-36-0	231-146-5	0.55%	Antimony	Uncontrolled product according to WHMIS classification criteria; D1B(powder)	Xn, N; R20/22, R51/53; S2, S61 except tetroxide, pentoxide, trisulphide, pentasulphide, and those specified elsewhere in the annex
7440-31-5	231-141-8	0.86%	Tin	Uncontrolled product according to WHMIS classification criteria	Not Listed
7440-38-2	231-148-6	0.06%	Arsenic	D1A, D2A	T, N; R23/25, R50/53; S1/2, S20/21, S28, S45, S60, S61
7440-70-2	231-179-5	0.06%	Calcium	B6, E	F; R15; S2, S8, S24/25, S43

Case material composes 6.27% of the article. Case material includes the following components: 1-Propene,homopolymer (9003-07-0); Polystyrene (9003-53-6); Acrylonitrile, polymer with styrene (9003-54-7); Acrylonitrile,polymer with 1,3-butadiene and styrene (9003-56-9); Styrene polymer with 1,3-butadiene and styrene (9003-56-9);Styrene polymer with 1,3-butadine (Kraton) (9003-55-8); Ethylene, chloro-, polymer (9003-86-2); Hard Rubber;Polycarbonate; Polyethylene.

SECTION 4: FIRST AID MEASURES

Eye Contact: First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention

Skin Contact: First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical

attention.

Ingestion: First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If ingested consult physician immediately.

Inhalation: First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air.

Self-protection of the first aider:

If artificial respiration, is required use a pocket mask equipped with a one-way valve or other proper respiratory medical device.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: CO2, dry chemical or foam.

Unsuitable Extinguishing Media: Avoid using water.

Special Hazards Arising from the Substance or Mixture:

Hazardous Combustion Products: Lead portion ofbattery will likely produce toxic metal fume, vapor or dust.

Advice for Fire-fighters: Keep sparks or other sources ofignition away from batteries. Do not allow metallic materials to simultaneously contact negative and positive terminals of cells and batteries. Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.

Additional Information:

Material itselfis non-combustible although in fire situations will likely produce toxic metal fume, vapor or dust.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Protective equipment and emergency procedures.

No special precautions expected to be necessary if material is used under ordinary conditions and as recommended. Avoid contact of lead with skin.

For non-emergency personnel: Protective equipment: Wear chemical gloves.

For emergency responders: No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

Personal protective equipment:

Wear chemical gloves, goggles, acid resistant clothing and boots, respirator if insufficient ventilation.

Environmental Precautions:

Prevent entry into waterways, sewers, basements or confined areas. Runoff from fire control and dilution water may be toxic and corrosive and may cause adverse environmental impacts.

Methods and material for containment and cleaning up:

For containment:

Lead dust should be vacuumed or wet swept into a D.O.T. approved container. Use controls that minimize fugitive emissions. Do not use compressed air.

For cleaning up:

Contact local and/or state officials for proper disposal requirements.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling:

Handle batteries cautiously. Do not tip to avoid spills (iffilled with electrolyte). Avoid contact with internal components. Wear protective clothing when filling or handling batteries. Follow manufacturer's instructions for installation and service. Do not allow conductive material to touch the battery terminals. Short circuit may occur and cause battery failure and fire.

Advice on general occupational hygiene： Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Eyewash stations and safety showers should be provided with unlimited water supply. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities:

Avoid contact with strong bases, acids, combustible organic materials, halides, halogenates, potassium nitrate, permanganate, peroxides, nascent hydrogen, reducing agents and water.

Technical measures and storage conditions:

Store in a cool/low-temperature, well-ventilated place away from heat and ignition sources. Batteries should be stored under rooffor protection against adverse weather conditions. Place cardboard between layers of stacked batteries to avoid damage and short circuits. Store batteries on an impervious surface. Storage class:

Class 13: Non-flammable solids in non-flammable package.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational exposure limits:

Limit value type (country of origin)	Substance name	EC-No.	CAS-No	Limit value	Monitoring and observation processes
TWA(ACGIH USA) STEL (CA-ON) TWA (CA-ON) TWA (CA-QU)	Arsenic		7440-38-2	0.01 mg/m3 50 µg/m3 10 µg/m3 1.1 mg/m3	Designated substance regulation

STEL (CH) TWA (CH) TWA (FI) TWA (FI) Biological Limit Value (FI) TWA (ME) Ceiling (NIOSH)				1.2 mg/m3 0.01 mg/m3 0.01 mg/m3 70 nmol/L 1.1 mg/m3 1.2 mg/m3	Medium: Urine Time: end of shift at end of workweek
TWA(ACGIH USA) TWA (CA) TWA (FI) STEL(ME) TWA (ME) TWA (NIOSH USA)	Tin	231-141-8	7440-31-5	2 mg/m3 2 mg/m3 2 mg/m3 4 mg/m3 2 mg/m3 2 mg/m3	
STEL (CH) TWA (CH) TWA (ACGIH USA) TWA (CA) TWA (FI) TWA (JP) TWA(ME) TWA(NIOSH USA) TWA (OSHA USA)	Antimony	231-146-5	7440-36-0	1.5 mg/m3 0.5 mg/m3 0.5 mg/m3 0.5 mg/m3 0.5 mg/m3 0.1 mg/m3 0.5 mg/m3 0.5 mg/m3 0.5 mg/m3	
TWA (ACGIH) TWA(CA ON) TWA(CA QU) STEL(CH) TWA(CH) TWA(FI) Biological Limit Value (FI) TWA(JP) TWA(ME) TWA(NIOSH) TWA(OSHA)	Lead	231-100-4	7439-92-1	0.05 mg/m3 0.05 mg/m3 0.05 mg/m3 0.15 (0.09) mg/m3 0.05(0.03)mg/m3 0.1 mg/m3 1.4 umol/L 0.1 mg/m3 0.15 mg/m3 0.05 mg/m3 50 ug/m3	Designated substance regulation Dust (fume) Dust (fume) Dust As Pb, dust and fume

Exposure Controls: Store and charge in a well-ventilated area. General dilution ventilation is acceptable.

Personal Protective Equipment:

Pictograms:

Eye/Face Protection: Wear protective eyewear (goggles, face shield or safety glasses with side shields).

Skin Protection: Wear protective gloves.

No skin protection is ordinarily required under normal conditions of use, in accordance with industrial hygiene practices. If contact with leaking battery is expected, precautions should be taken to avoid skin contact. Under severe exposure or emergency conditions, wear acid resistant clothing and boots.

Respiratory Protection: In case ofinsufficient ventilation, wear suitable respiratory equipment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties.

Appearance:

Physical state: Solid. Odor: Odorless.

Color: Bluish gray metal Odor threshold:No Data.

Safety relevant basic data: pH(20℃):No Data

Melting point/range (˚C): 252.2222-360.

Initial boiling point/range (˚C): 1380

Decomposition temperature (˚C): No Data.

Flash point (˚C): No Data.

Ignition temperature (˚C): No Data.

Vapor pressure (hPa): No Data.

Vapor density (air = 1): No Data.

Density (g/cm3): 599.3267-705.4575 lbs/ft3.

Bulk density (kg/m3): No Data.

Specific Gravity/Relative Density (Water=1): 9.6-11.3.

Water solubility (20℃ in g/l): No Data.

Solubility(ies): No Data.

Partition coefficient: No Data.

N-Octanol/Water (log Po/w): No Data.

Viscosity, dynamic (mPa s): No Data.

Other safety information:

Properties of explosive atmospheres (mixtures):

Gases and vapors: No Data.

Dusts: No Data.

Physical chemical properties of nanoparticles: No Data.

Limiting oxygen concentration: No Data.

Bulk density: No Data.

Solubility in different media: No Data.

Stability in organic solvents and identity of relevant degradation products: No Data.

Evaporation rate: No Data.

Conductivity: No Data.

Surface tension: No Data.

Dissociation constant in water (pKa): No Data.

Oxidation-reduction Potential: No Data.

Fat solubility (solvent – oil to be specified): No Data.

Critical temperature: No Data.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Not reactive.

Chemical stability: Stable under normal temperatures and pressures.

Possibility of hazardous reactions: Hazardous polymerization will not occur.

Conditions to avoid: Prolonged overcharge, sources ofignition.

Incompatible materials: Avoid contact with strong bases, acids, combustible organic materials,halides, halogenates, potassium nitrate, permanganate, peroxides, nascent hydrogen, reducing agents and water.

Hazardous decomposition products: Lead compounds exposed to high temperatures will likely produce toxic metal fume, vapor or dust; contact with strong acid/base or presence of nascent hydrogen may generate highly toxic arsine gas.

SECTION 11: TOXICOLOGICAL INFORMATION

Lead (7439-92-1)	Effect dose/ Concentration	Species	Method	Time
Acute oral toxicity	155 mg/kg	Human	LDLo	
Acute oral toxicity	1050 ug/kg	Rat	TDLo	30 Weeks(int.)
Acute inhalative toxicity (dust/mist)	0.011 mg/m3	Human	LCLo	26 Weeks (int.)
Mutagen	23 ug/m3	Rat	Inhalation	16 Weeks
Reproductive	790 mg/kg	Rat	TDLo (Oral)	
Reproductive	3 mg/m3	Rat	TCLo (Inhalation)	1-21 Days preg.
Antimony (7440-36-0)	Effect dose / Concentration	Species	Method	Time
Acute oral toxicity	100 mg/kg	Rat	LD50	
Acute inhalative toxicity (dust/mist)	13.5 mg/m3	Human	LCLo	4 Hours
Tumorigen/Carcinogen	50 mg/m3	Rat	TCLo	7 hours 52 weeks(int.)

Arsenic (7440-38-2)	Effect dose/ Concentration	Species	Method	Time
Acute oral toxicity	763 mg/kg	Rat	LD50	
Acute oral toxicity	5 mg/kg	Rat	LDLo	
Mutagen	0.211 mg/L	Human	Oral	15 Years
Reproductive	605 ug/kg	Rat	TDLo	35 weeks preg.

Other information:

In case of ingestion:

Acute (Immediate): Under normal conditions of use, no health effects are expected. Lead ingestion may cause abdominal pain, nausea, vomiting, diarrhea and severe cramping.

Chronic (Delayed): No data available.

Carcinogenic Effects			
	CAS	IARC	NTP
Lead	7439-92-1	Group 2A–Probable Carcinogen	Reasonably anticipated to be human carcinogen

Routes of exposure:

In case of ingestion:

Acute (Immediate): Under normal conditions of use, no health effects are expected. Lead ingestion may cause abdominal pain, nausea, vomiting, diarrhea and severe cramping.

Chronic (Delayed): No data available.

In case of skin contact:

Acute (Immediate): Under normal conditions of use, no health effects are expected.

Chronic (Delayed):No data available.

In case of inhalation:

Acute (Immediate): Under normal conditions of use, no health effects are expected. Contents of an open battery can cause respiratory irritation.

Chronic (Delayed): Repeated and prolonged exposure may cause irritation.

In case of eye contact:

Acute (Immediate): Under normal conditions of use, no health effects are expected. Exposure to dust may cause irritation.

Chronic (Delayed): No data available.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity: Aquatic toxicity.

Substances Acute (short-term) toxicity: No Data.

Persistence/Degradability: Lead is persistent in soils and sediments.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods:

Product/packaging disposal: Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Waste codes/waste designations according to EWC/AVV: 16 06 05.

Additional information: Any waste marked with an asterisk (*) is considered as a hazardous waste pursuant to Directive 91/689/EEC on hazardous waste, and subject to the provisions of that Directive unless Article 1(5) of that Directive applies.

SECTION 14: TRANSPORT INFORMATION

Land transport (CFR 49: DOT):

This product is not hazardous as defined by 49CFR 172.101 by the U.S. Department of Transportation.

UN-No:

Proper shipping name: Class(es):

Packing group:

Hazard label(s):

Special provision(s)/Exceptions:

Land transport (ADR/RID/GGVSEB):

This product is not classified by the United Nations Economic Commission for Europe to be dangerous goods.

UN-No:

Proper shipping name:

Class(es):

Classification Code:

Packing group:

Hazard label(s):

Special provision(s):

Land transport (TDG):

This product is not classified as dangerous goods by the TDG standards.

UN-No:

Proper shipping name: Class(es):

Packing group:

Hazard label(s): Special provision(s):

Sea transport (IMDG-Code/GGVSee):

This product is not classified as dangerous goods by the IMO

UN No:
Proper shipping name: Class(es):
Packing group:
Marine Pollutant: Special provision(s):

Air transport (ICAO-IATA/DGR):

This product is not classified as dangerous goods by the International Air Transport Association (IATA) or the ICAO.

UN No:
Proper shipping name:
Class(es):
Packing group:
Special provision(s):

SECTION 15: REGULATORY INFORMATION

National regulations(Canada): WHMIS Classification:

This product does not meet the classification criteria of the Controlled Products Regulations.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the Controlled Products Regulations.

Canada DSL:

The following substances are listed on the Canadian DSL:
Lead (7439-92-1); Antimony (7440-36-0); Tin (7440-31-5); Arsenic (7440-38-2);
Calcium (7440-70-2)

Canada NDSL:

None of the components on this SDS are listed on the Canadian NDSL:

National regulations(China):

The following components are listed on the Inventory list for China:
Lead (7439-92-1); Antimony (7440-36-0); Tin (7440-31-5); Arsenic (7440-38-2); Calcium (7440-70-2).
National regulations(European Union): Classification: Xi

Risk Phrases: R36, R38.
Safety Phrases: S1/2, S26, S30, S45.
The following components are listed on the EU EINECS:
Lead (7439-92-1); Antimony (7440-36-0); Tin (7440-31-5); Arsenic (7440-38-2); Calcium (7440- 70-2)
None of the above mentioned components are listed on the EU ELNICS.

National regulations(Japan):

The following chemicals are on the Japanese ENCS:

Lead (7439-92-1); Antimony (7440-36-0); Tin (7440-31-5); Arsenic (7440-38-2); Calcium (7440- 70-2).

National regulations(Korea):

The following substances are listed on the Korean KECL:

Lead (7439-92-1); Antimony (7440-36-0); Tin (7440-31-5); Arsenic (7440-38-2); Calcium (7440- 70-2).

National regulations(United States):

The following substances are on the MA, NJ, and PA Right To Know Lists:

Lead (7439-92-1); Antimony (7440-36-0); Tin (7440-31-5); Arsenic (7440-38-2); Calcium (7440- 70-2).

The following substances are on the TSCA inventory:

Lead (7439-92-1); Antimony (7440-36-0); Tin (7440-31-5); Arsenic (7440-38-2); Calcium (7440- 70-2).

SECTION 16: OTHER INFORMATION

Relevant R-, H- and EUH-phrases (number and full text):

Hazard Abbreviations:

Xi: Irritant.

Xn: Harmful.

N: Dangerous for the environment T: Toxic.

F: Highly Flammable.

Risk Phrases:

R15: Contact with water liberates extremely flammable gases.

R20/22: Harmful by inhalation and if swallowed R23/25: Toxic by inhalation and if swallowed.

R33: Danger of cumulative effects R36: Irritating to eyes.

R38: Irritating to skin.

R50: Very toxic to aquatic organisms.

R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic. environment R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R53: May cause long-term adverse effects in the aquatic environment R61: May cause harm to the unborn child.

R62: Possible risk ofimpaired fertility.

Safety Phrases:

S1/2: Keep locked up and out of the reach of children.

S2: Keep out of the reach of children S8: Keep container dry.

S20/21: When using do not eat, drink, or smoke.

S24/25: Avoid contact with skin and eyes.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice S28: After contact with skin, wash immediately with plenty of water.

S30: Never add water to this product.

S43: In case of fire use CO2, dry chemical, or foam. Never use water.

S45: In case of accident or if you feel unwell seek medical advice immediately (show the label where possible) S53: Avoid exposure – obtain special instructions before use.

S60: This material and its container must be disposed of as hazardous waste.

S61: Avoid release to the environment. Refer to special instructions/safety data sheet.

Hazard statements:

H313: May be harmful in contact with skin.

H315: Causes skin irritation.

H335: May cause respiratory irritation EUH201A: Warning! Contains lead.

Precautionary statements: P102: Keep out of reach of children. P233: Keep containers tightly closed.

P210: Keep away from heat, sparks, and open flame while charging batteries.

Universal Power Group, Inc. provides the information in this SDS in good faith. However, Universal Power Group, Inc. makes no representations as to its comprehensiveness or accuracy. This date sheet is intended, as a guide, for the appropriate precautionary handling of the material by a properly trained person using it.

Individuals receiving this information must exercise their independent judgement in determining its appropriateness for a particular process. Universal Power Group, Inc. will not accept responsibility for damages resulting from use of reliance upon this information.