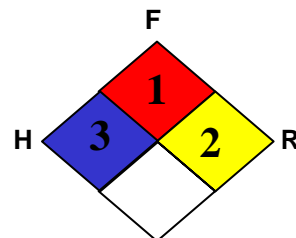




CONCORDE BATTERY DRY CHARGED BATTERY

Hazard Rating



MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER'S NAME: CONCORDE BATTERY CORPORATION	EMERGENCY TELEPHONE NO.: CHEMTEL 800-255-3924
ADDRESS: 2009 San Bernardino Rd., West Covina, CA 91790	OTHER INFORMATION CALLS: 626-813-1234
PERSON RESPONSIBLE FOR PREPARATION: Gonzalo Ramos, Safety, Health & Environmental Affairs Manager	Revision Date: JUNE 30, 2006

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

C.A.S.	PRINCIPAL HAZARDOUS COMPONENT(S) (chemical & common name(s))	Hazard Category	% Weight	ACGIH TLV - mg/m ³	OSHA PEL/TWA - mg/m ³
7439-92-1	Lead/Lead Oxide/Lead Sulfate	Acute-Chronic	94	0.05	0.05
7440-36-0	Antimony	Chronic	1-5	0.5	0.5
7440-38-2	Arsenic (inorganic)	Acute-Chronic	< 1	0.01	0.01
7440-70-2	Calcium	Reactive	< 0.15	Not Established	Not Established
7440-31-5	Tin	Chronic	< 0.15	2	2

Note: PEL's for Individual states may differ from OSHA's PEL's. Check with local authorities for the applicable state PEL's.

COMMON NAME: (Used on label) Dry Charged Battery
(Trade name & synonyms)

Chemical Family: Toxic Material Mixture (when battery is opened/broken) otherwise product itself is non-toxic.

Chemical Name: Dry Charged Battery

Formula: Lead + Plastic (polypropylene case)

SECTION 3 - HAZARD IDENTIFICATION

Signs and Symptoms of Exposure	1. Acute Hazards Direct skin or eye contact may cause local irritation. Inhalation or ingestion of lead dust or fumes may result in headache, nausea, vomiting, abdominal spasms, fatigue, sleep disturbances, weight loss, anemia and leg, arm and joint pain.
	2. Sub-Chronic and Chronic Health Effects Prolonged exposure may cause central nervous system damage, gastrointestinal disturbances, anemia, wrist-drop and kidney dysfunction and reproductive problems. Pregnant women should be protected from excessive exposure to prevent lead from crossing the placental barrier and causing infant neurological disorders. California Proposition 65 Warning: Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.
Medical Conditions Generally Aggravated by Exposure	If battery is broken or material is spilled (when filled with electrolyte), then persons with the following medical conditions must take precautions: pulmonary edema, bronchitis, emphysema, dental erosion and tracheobronchitis.
Routes of Entry	Inhalation: YES Ingestion: YES Eye Contact: YES Skin Contact: YES Skin Absorption: NO
Chemical(s) Listed as Carcinogen or potential Carcinogen	Proposition 65 - YES National Toxicology Program - YES I.A.R.C. Monographs - YES O.S.H.A. - NO

SECTION 4 - FIRST AID MEASURES

Emergency and First Aid Procedures	Contact with Lead Compounds
1. Inhalation	Remove to fresh air and provide medical oxygen/CPR if needed. Obtain medical attention.
2. Eyes	Immediately flush with water for at least 15 minutes, hold eyelids open. Obtain medical attention.
3. Skin	Flush contacted area with large amounts of water for at least 15 minutes. Remove contaminated clothing and obtain medical attention if necessary (when filled with electrolyte).
4. Ingestion	Do not induce vomiting. If conscious drink large amounts of water/milk. Obtain medical attention. Never give anything by mouth to an unconscious person.

SECTION 5 - FIRE-FIGHTING MEASURES

Flash Point – Non Flammable	Flammable Limits in Air % by Volume: (when charging)	Hydrogen (H ₂) 4.1%	Lower 4.1%	Upper 74.2%	Extinguishing Media – Class ABC, CO ₂ , dry chemical, foam	Auto-Ignition Temperature 675°F (polypropylene)
Special Fire Fighting Procedures	Lead/acid batteries do not burn, or burn with difficulty. Do not use water on fires where molten metal is present. Molten metals produce fume, vapor and/or dust that may be toxic and/or respiratory irritants. Extinguish fire with agent suitable for surrounding combustible materials. Cool exterior of battery if exposed to fire to prevent rupture. Wear full body protective clothing and NIOSH approved self-contained breathing apparatus with positive pressure and full face piece.					
Unusual Fire and Explosion Hazards	Hydrogen gas and sulfuric acid vapors are generated upon overcharge (when filled with electrolyte) and polypropylene case failure. Ventilate charging areas as per ACGIH <u>Industrial Ventilation A Manual of Recommended Practice</u> and <u>National Fire Code</u> , 1980 Vol. 1, P. 12, B-9, 10. Hydrogen gas may be flammable or explosive when mixed with air, oxygen, chlorine. To avoid risk of fire or explosion, keep sparks or other sources of ignition away from batteries and do not allow metallic materials to simultaneously contact negative and positive terminals of cells and batteries.					

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Procedures for Cleanup: Lead dust or particulate should be vacuumed (using HEPA filter) or wet swept. Use controls which minimize fugitive emissions; do **NOT** use compressed air. Place in dry, closed containers for disposal or recycling. The product is a dry battery and is considered non-spillable.

Personal Precautions: Wear protective clothing and appropriate respirator. ANSI approved safety glasses with side shields/face shields recommended.

Environmental Precautions: Lead and its compounds are a severe threat to the environment. Contamination of water, soil and air should be prevented.

SECTION 7 - HANDLING AND STORAGE

Precautions to be Taken in Handling and Storage	Store away from reactive materials, open flames and sources of ignition as defined in Section 10 – Stability and Reactivity Data. Store batteries in cool, dry, well-ventilated areas. Batteries should be stored under roof for protection against adverse weather conditions. Avoid damage to containers.
Other Precautions	GOOD PERSONAL HYGIENE AND WORK PRACTICES ARE MANDATORY. Refrain from eating, drinking or smoking in work areas. Thoroughly wash hands, face, neck and arms before eating, drinking and smoking. Work clothes and equipment should remain in designated lead contaminated areas, and never taken home or laundered with personal clothing. Wash soiled clothing, work clothes and equipment before reuse.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

Respiratory Protection	None required under normal conditions		
Ventilation	Store and handle in dry ventilated area.	Local Exhaust: No	Mechanical: No
Protective Gloves	Wear rubber or plastic acid resistant gloves with elbow length gauntlet when filling batteries.	Eye Protection	Use chemical goggles & face shield when filling batteries.
Other Protective Clothing or Equipment	Handle batteries cautiously to avoid spills (when filled with electrolyte). Make certain vent caps are on securely. Avoid contact with internal components. Aprons, boots and protective clothing appropriate for an industrial environment.		

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: Not Applicable	Vapor Pressure Not Applicable	Specific Gravity 9.5 – 11.4 g/ml	Melting Point: >320°F (polypropylene)
Percent Volatile By Volume Not Applicable	Vapor Density Not Applicable	Evaporation Rate Not applicable	
Solubility In water Negligible	Reactivity in Water None		
Appearance and Odor:	Battery: Rectangular polypropylene case with metal terminals, may be contained within an outer casing of aluminum or steel Lead: Gray, metallic, solid. Lead oxide: Brown/Grey oxide No apparent odor		

SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable	Conditions to Avoid: Incompatible Materials, strong oxidants.
Incompatibility (Materials to Avoid)	Strong oxidizers and this product may liberate hydrogen gas.
Hazardous Decomposition Products	Irritating fumes and/or gases that may be toxic and/or respiratory irritants.
Hazardous Polymerization	Hazardous Polymerization has not been reported.

SECTION 11 - TOXICOLOGICAL INFORMATION

GENERAL: The primary routes of exposure are ingestion or inhalation of dust.

ACUTE:

INHALATION/INGESTION: Exposure to lead and its compounds may cause headache, nausea, vomiting, abdominal spasms, fatigue, sleep disturbances, weight loss, anemia, and pain in the legs, arms and joints. Kidney damage, as well as anemia, can occur from acute exposure.

CHRONIC:

INHALATION/INGESTION: Prolonged exposure to lead and its compounds may produce many of the symptoms of short-term exposure and may also cause central nervous system damage, gastrointestinal disturbances, anemia, and wrist drop. Symptoms of central nervous system damage include fatigue, headaches, tremors, hypertension, hallucination, convulsions and delirium. Kidney dysfunction and possible injury has also been associated with chronic lead poisoning. Chronic over-exposure to lead has been implicated as a causative agent for the impairment of male and female reproductive capacity, but there is at present, no substantiation of the implication. Pregnant women should be protected from excessive exposure. Lead can cross the placental barrier and unborn children may suffer neurological damage or developmental problems due to excessive lead exposure in pregnant women.

SECTION 12 - ECOLOGICAL INFORMATION

In most surface water and groundwater, lead forms compounds with anions such as hydroxides, carbonates, sulfates, and phosphates, and precipitates out of the water column. Lead may occur as sorbed ions or surface coatings on sediment mineral particles or may be carried in colloidal particles in surface water. Most lead is strongly retained in soil, resulting in little mobility. Lead may be immobilized by ion exchange with hydrous oxides or clays or by chelation with humic or fulvic acids in the soil. Lead (dissolved phase) is bio-accumulated by plants and animals, both aquatic and terrestrial.

SECTION 13 - DISPOSAL CONSIDERATIONS

DISPOSE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS FOR LEAD AND LEAD COMPOUNDS. LEAD-ACID BATTERIES ARE COMPLETELY RECYCLABLE. FOR INFORMATION ON RETURNING BATTERIES TO CONCORDE FOR RECYCLING CALL 626-813-1234.

SECTION 14 - TRANSPORT INFORMATION

U.S. DOT PROPER SHIPPING NAME: Batteries, dry, (not subject to the requirements of 49 CFR)

IMO PROPER SHIPPING NAME: Batteries, dry (Not regulated by this mode of transportation)

IATA PROPER SHIPPING NAME: Batteries, dry (Not regulated by this mode of transportation)

SECTION 15 - REGULATORY INFORMATION

U.S. HAZARDOUS UNDER HAZARD COMMUNICATION STANDARD: LEAD – YES
ANTIMONY – YES
ARSENIC – YES
LEAD SULFATE - YES

INGREDIENTS LISTED ON TSCA INVENTORY: YES
CERCLA SECTION 304 HAZARDOUS SUBSTANCES: LEAD – YES RQ: REPORTING NOT REQUIRED WHEN DIAMETER OF THE PIECES OF SOLID METAL RELEASED IS EQUAL TO OR EXCEEDS 100 µm.
ANTIMONY – YES RQ: 5000 POUNDS
ARSENIC – YES RQ: 1 POUND
LEAD SULFATE –YES RQ: 10 POUNDS

EPCRA SECTION 313 TOXIC RELEASE INVENTORY: LEAD – CAS NO: 7439-92-1
ANTIMONY – CAS NO: 7440-36-0
ARSENIC – CAS NO: 7440-38-2
LEAD SULFATE – CAS NO: 7446-14-2

SECTION 16 - OTHER INFORMATION

THE INFORMATION ABOVE IS BELIEVED TO BE ACCURATE AND REPRESENTS THE BEST INFORMATION CURRENTLY AVAILABLE TO US. HOWEVER, CONCORDE MAKES NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, WITH RESPECT TO SUCH INFORMATION, AND WE ASSUME NO LIABILITY RESULTING FROM ITS USE. USERS SHOULD MAKE THEIR OWN INVESTIGATIONS TO DETERMINE THE SUITABILITY OF THE INFORMATION FOR THEIR PARTICULAR PURPOSES. ALTHOUGH REASONABLE PRECAUTIONS HAVE BEEN TAKEN IN THE PREPARATION OF THE DATA CONTAINED HEREIN, IT IS OFFERED SOLELY FOR YOUR INFORMATION, CONSIDERATION AND INVESTIGATION. THIS MATERIAL SAFETY DATA SHEET PROVIDES GUIDELINES FOR THE SAFE HANDLING AND USE OF THIS PRODUCT; IT DOES NOT AND CANNOT ADVISE ON ALL POSSIBLE SITUATIONS, THEREFORE, YOUR SPECIFIC USE OF THIS PRODUCT SHOULD BE EVALUATED TO DETERMINE IF ADDITIONAL PRECAUTIONS ARE REQUIRED.

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