



Manufacturer: BYD Auto Industry Company Limited

Material Safety Data Sheet

May 16th, 2013

Section 1 - Product and Company Identification		
Manufacturer: BYD Auto Industry Company Limited		
Address: NO.3009, BYD Road, Pingshan, Shenzhen, 518 P.R.China		Tel:+86-755-89888888
City: Shenzhen		Emergency call: +86-755-89888888
Section 2 - Hazard Identification		
Emergency instruction: The system will be stable under the situation of proper operation and store. Keep the container no turn on other side and no upside down. Keep the system away from high temperature and without flame in container. Do not dismantle the circuit and other component in the container without report.		
Possible hazardous access	No	
Environment protection	No littering	
Section 3 - Composition Information		
Component	CAS#	% (according to weight)
Steel	---	53.2-56.9
LiCoxFel-xP04(x<3)		7.6-13
PVDF	24937-79-9	0.42-0.76
Carbon	7440-44-0	3.1-7
PTFE	---	0.09-0.4
ester	---	7.4-11.4
PP	---	0.9-1.6
Heat preservation material	---	1.1-1.7
Copper	7440-50-8	7.3-11
Aluminum	7429-90-5	4.1-5.1
PVC	---	0.05-0.1
Fir Control System	---	0.04-0.11
Wire	---	2.7-3.7
CO ₂	---	0.02-0.04
第 4 部分 - 急救措施		
Section 4 - First Aid Measures		
Skin contact	Remove contaminated clothes and shoes immediately. Wash the adherence or contact region with soap and plenty of water. Seek medical attention immediately.	
Eye contact	Immediately flush eyes with water continuously for at least 15 minutes. Seek medical attention immediately.	
Inhalation	Cover the victim in a blanket, move to the place of fresh air and keep quiet. Seek medical attention immediately. When dyspnea (breathing difficulty) or asphyxia (breath-bald), give artificial respiration immediately.	
Ingestion	Get medical aid. Do not induce vomiting. Get medical attention immediately.	
Section 5 - Fire Fighting Measures		
Suitable Extinguisher	FM200. Dry power, sand, carbon dioxide (CO ₂).	

Unsuitable Extinguisher	Water
Specific hazards	Risk of bursting when it is exposed to fire.
Special protective equipment for firefighters	In the event of a fire, wear full protective clothing and self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.
Section 6 - Accidental Release Measures	
Personal precautions	No entrance without approval
Environmental precautions	Do not throw raw material into the environment.
Methods and material for cleaning up	Dilute the leaked ester with water and neutralize with diluted sulfuric acid, when the leaked ester of container has leakage. The leaked solid is moved to a vessel. The leaked place is fully flushed with water.
Section 7 - Handling and Storage	
Handling	<p>Technical measures: Prevention of user exposure; not necessary under normal use.</p> <p>Prevention of fire and explosion: Not necessary under normal use.</p> <p>Precaution for safe handling: Do not dismantle the component in the cabinet .</p> <p>Specific safe handling advice:</p> <p>Never throw out container in a fire or expose to high temperatures.</p> <p>Do not soak container in water and seawater.</p> <p>Do not expose to strong oxidizers.</p> <p>Do not give a strong mechanical shock or throw down. Never disassemble, modify or deform.</p> <p>Do not touch the component in the container casually.</p>
Storage	<p>Storage conditions (suitable to be avoided)</p> <p>Avoid direct sunlight, high temperature, and high humidity.</p> <p>Store in cool place (temperature: -10~45°C, humidity: 45~85%).</p> <p>Incompatible products</p> <p>Conductive materials, water, seawater, strong oxidizers and strong acids.</p> <p>Packing material (recommended, not suitable)</p> <p>Isolative and tear-proof, waterproof materials are recommended.</p>
Section 8 - Exposure Controls and Person Protection	
Engineering control	N/A
Occupational exposure limits	N/A
Eye protection	When handling leaking ester. Wear appropriate protective eyeglasses or chemical safely goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910 or European Standard EN166.
Skin protection	Use neoprene, rubber or nitrile gloves when handling leaking batteries to prevent skin exposure.
Breathing system protection	When it is possible to contact with hazardous gas, Non-powered air-purifying respirators or isolated respirator must be wear.
Clothing	Wear appropriate protective clothing to minimize contact with skin.
Section 9 - Physical and Chemical Properties	
Appearance and odor	N/A

Odor threshold	N/A
PH	N/A
Melting/freezing point	N/A
Initial boiling point	N/A
Flash point	N/A
Evaporation rate	N/A
Inflammability (solid and gas state)	N/A
Lowest flammable limit % (V/V)	N/A
High flammable limit % (V/V)	N/A
Vapor pressure (Kpa)	N/A
Sublimation point (°C)	N/A
Density (water=1)	N/A
Relative Density (air=1)	N/A
Solubility	不溶于水Insoluble in water
Partition coefficient: n-octanol/water	N/A
Automatic ignition temperature (°C)	N/A
Decomposition temperature	N/A
Section 10 - Stability and Reactivity	
Chemistry Stability	All of the components in the container are stable under storage conditions described in Section 7.
Possibility of hazardous reaction	No occurrence.
Conditions to avoid	Direct sunlight, high temperature and high humidity. Do not heat above 100°C (212°F), incinerate, or expose contents to water.
Incompatible material	Strong oxidizing property, strong acid.
Hazardous decomposition product	N/A
Section 11 - Toxicological Information	
None unless internal materials are exposed. Toxic information is available on the ingredients noted in section 2, but generally not available to intact batteries as used by customers. In case of internal gas released or electrolyte spilled, electrolyte and organic solvents has small toxicity and may cause irritation of skin or eyes. Released gas may also cause irritation of skin of eyes.	
Section 12 - Ecological Information	
Ecological toxicity	No data available.
Environmental	Since a the internal materials remain in the environment, it can't be degradable. Do not throw out into the environment.
Bioaccumulation	No information.
Section 13 - Disposal Considerations	
Disposal measures	All of them can be recycled
Section 14 - Transportation	
UN Number	No file
PROPER SHIPPING NAME	No file
Packaging Group	No file

Sea contamination	No
National regulations	National regulations for transport land GB12268 This battery type is classified as dangerous goods for transport, because the watt-hour rating of the battery exceeds 100 Wh. We also declare that this battery type meets the requirements of each test in the UN Manual of tests and Criteria Part III, Subsection 38.3 (ST/SG/AC.10/11/Rev.4)
Section 15 - Regulatory Information	
Major applicable regulations for the transportation are as follows: SARA 313 Regulated Chemical(s) California Prop. 65 The UN Model Regulations, United Nations ST/SG/AC.10/1/Rev 16. Recommendations on the Safe Transport of Dangerous Goods The International Civil Aviation Organization (ICAO) Technical Instructions for the Safe Transport of Dangerous Goods by Air Transport The International Air Transport Association (IATA) Dangerous Goods Regulations (52st Edition 2011) International Maritime Organization (IMO) International Maritime Dangerous Goods Code (IMDG Code) Amdt. 34-08 2008 OSHA Hazard communication standard (29 CFR 1910)	
<input type="checkbox"/> Hazardous <input checked="" type="checkbox"/> Non-hazard	
Section 16 - Other Information	
The information contained in this Safety data sheet is based on the present state of knowledge and current legislation. This safety data sheet provider guidance on health. Safety and environmental specs of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.	
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File made by personnel	
Date	2013

The material safety data sheet is furnished to every manufacturer as a reference to secure the safe handling of chemical. Every manufacturer is requested to carry out appropriate actions for chemical handling as their own responsibility. The supplier makes no warrantee, either express or implied. Concerning of this products, User assumes all risks resulting from its use.