

MSDS: B6388

ITEM: 5EFG1 - Battery Lead Acid 12 Volts 28 AH

ORDER: 0080159303

LP NUMBER: U843385411

MATERIAL SAFETY DATA SHEET (MSDS)

This MSDS should be attached or kept with the respective product with which it is associated.

MATERIAL SAFETY DATA SHEET - B6388

Associated Grainger Items
5EFE7, 5EFE8, 5EFE9, 5EFF0, 5EFF1, 5EFF2, 5EFF3, 5EFF4, 5EFF5, 5EFF6, 5EFF7
5EFF8, 5EFF9, 5EFG0, 5EFG1, 5EFG2, 5EFG3, 5EFG4, 5EFG5, 5EFG6, 5EFG7, 5EFG8
5EFG9, 5EFH0, 5EFH1, 5EFH2, 5EFH3, 5EFH4, 5EFH5, 5EFH6

MATERIAL SAFETY DATA SHEET

COOPOWER (R\*) VRLA BATTERIES

COOPOWER BATTERY INDUSTRIAL CO., LTD.

ADD:
BLDG 20, QINGHU INDUSTRIAL ESTATE
LONGHUA TOWN, SHENZHEN CITY
GUANGDONG PROVINCE
CHINA

SECTION 1: PRODUCT AND MANUFACTURER

PRODUCT NAME: SEALED MAINTENANCE-FREE LEAD ACID BATTERIES

BRAND NAME: COOPOWER

MANUFACTURER: COOPOWER BATTERY INDUSTRIAL CO., LTD

ADDRESS:
BLDG. 20, QINGHU INDUSTRIAL ESTATE
LONGHUA TOWN, SHENZHEN
CHINA

TEL: +86-755 28079816

FAX:

SECTION 2: HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

NOTE:
PRODUCT CONTAINS TOXIC CHEMICALS THAT ARE SUBJECT TO THE REPORTING
REQUIREMENTS OF SECTION 302 AND 313 OF THE EMERGENCY PLANNING AND COMMUNITY
RIGHT-TO-KNOW ACT OF 1986

Table with 5 columns: MATERIAL, % BY WT., CAS NUMBER, AIR EXPOSURE LIMITS ((MICRO)G/M3) OSHA, ACGIH, NIOSH. Rows include LEAD and LEAD OXIDE.

SECTION 3: PHYSICAL/CHEMICAL CHARACTERISTIC DATA

MATERIAL IS SOLID AT NORMAL TEMPERATURES

ELECTROLYTE:

BOILING POINT: 230 DEG. F / 110 DEG. C

MELTING POINT: LEAD 327.4 DEG. C

SPECIFIC GRAVITY: 1.215 - 1.350

VAPOR DENSITY: NOT DETERMINED

% VOLATILES BY WEIGHT: NOT APPLICABLE

VAPOR PRESSURE: NOT DETERMINED

SOLUBILITY IN WATER: 100% (ELECTROLYTE)

EVAPORATION RATE: NOT DETERMINED

SECTION 4: HEALTH HAZARD INFORMATION

UNDER NORMAL OPERATING CONDITIONS, THE INTERNAL MATERIAL WILL NOT BE
HAZARDOUS TO YOUR HEALTH. ONLY INTERNALLY EXPOSED MATERIAL DURING
PRODUCTION OR CASE BREAKAGE OR EXTREME HEAT (FIRE) MAY BE HAZARDOUS TO YOUR
HEALTH.

SECTION 5: SIGN AND SYMPTOMS OF OVER EXPOSURE

ACUTE EFFECTS:
OVER EXPOSURE TO LEAD MAY LEAD TO LOSS OF APPETITE, CONSTIPATION,
SLEEPLESSNESS AND FATIGUE. OVER EXPOSURE TO ACID MAY LEAD TO SKIN
IRRITATION, CORNEAL DAMAGE OF THE EYES AND UPPER RESPIRATORY SYSTEM.

CHRONIC EFFECTS:
LEAD AND ITS COMPONENTS MAY CAUSE DAMAGE TO KIDNEYS AND NERVOUS SYSTEM.
ACID AND ITS COMPONENTS MAY CAUSE LUNG DAMAGE AND PULMONARY CONDITIONS.

POTENTIAL TO CAUSE CANCER:
THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER HAS CLASSIFIED "STRONG
INORGANIC ACID MIST CONTAINING SULFURIC ACID" AS A CATEGORY 1 CARCINOGEN, A
SUBSTANCE THAT IS CARCINOGENIC TO HUMANS. THIS CLASSIFICATION DOES NOT
APPLY TO LIQUID FORMS OF SULFURIC ACID OR SULFURIC ACID SOLUTIONS CONTAINED
WITHIN A BATTERY. INORGANIC ACID MIST IS NOT GENERATED UNDER NORMAL USE OF
THIS PRODUCT. MISUSE OF THE PRODUCT, SUCH AS OVERCHARGING, MAY HOWEVER
RESULT IN THE GENERATION OF SULFURIC ACID MIST.

SECTION 6: EMERGENCY AND FIRST AID PROCEDURES

INHALATION:
REMOVE FROM EXPOSURE AND APPLY OXYGEN IF BREATHING IS DIFFICULT.

SKIN:

WASH WITH PLENTY OF SOAP AND WATER. REMOVE ANY CONTAMINATED CLOTHING.

EYES:
FLUSH WITH PLENTY OF WATER IMMEDIATELY FOR AT LEAST 15 MINUTES. CONSULT A
PHYSICIAN.

INGESTION: CONSULT A PHYSICIAN IMMEDIATELY.

CALIFORNIA PROPOSITION 65:
THE STATE OF CALIFORNIA HAS DETERMINED THAT CERTAIN BATTERY TERMINALS AND
RELATED ACCESSORIES CONTAIN LEAD AND LEAD COMPOUNDS, CHEMICALS KNOWN TO THE
STATE OF CALIFORNIA TO CAUSE CANCER AND REPRODUCTIVE HARM.

WARNING: WASH HANDS THOROUGHLY AFTER HANDLING BATTERIES.

SECTION 7: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:
HYDROGEN: 259 DEG. C

AUTOIGNITION TEMPERATURE:
HYDROGEN: 580 DEG. C

EXTINGUISHING MEDIA: DRY CHEMICAL, FOAM, CO2

UNUSUAL FIRE AND EXPLOSION HAZARDS:
HYDROGEN AND OXYGEN GASES ARE PRODUCED IN THE CELLS DURING NORMAL BATTERY
OPERATION (HYDROGEN IS FLAMMABLE AND OXYGEN SUPPORTS COMBUSTION). THESE
GASES ENTER 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.

SECTION 8: REACTIVITY DATA

STABILITY: STABLE

CONDITIONS TO AVOID: SPARKS AND OTHER SOURCES OF IGNITION.

INCOMPATIBILITY: (MATERIALS TO AVOID)

1. LEAD/LEAD COMPOUNDS:
POTASSIUM, CARBIDES, SULFIDES, PEROXIDES, PHOSPHORUS, SULFUR.

2. BATTERY ELECTROLYTE (ACID):
COMBUSTIBLE MATERIALS, STRONG REDUCING AGENTS, MOST METALS, CARBIDES,
ORGANIC MATERIALS, CHLORATES, NITRATES, PICRATES, AND FULMINATES.

HAZARDOUS DECOMPOSITION PRODUCTS:

1. LEAD/LEAD COMPOUNDS: OXIDES OF LEAD AND SULFUR.

2. BATTERY ELECTROLYTE (ACID):
HYDROGEN, SULFUR DIOXIDE, AND SULFUR TRIOXIDE.

CONDITIONS TO AVOID:
HIGH TEMPERATURE. BATTERY ELECTROLYTE (ACID) WILL REACT WITH WATER TO
PRODUCE HEAT. CAN REACT WITH OXIDIZING OR REDUCING AGENTS.

SECTION 9: CONTROL MEASURES

ENGINEERING CONTROLS:
STORE LEAD/ACID BATTERIES WITH ADEQUATE VENTILATION. ROOM VENTILATION IS
REQUIRED FOR BATTERIES UTILIZED FOR STANDBY POWER GENERATION. NEVER
RE-CHARGE BATTERIES IN AN UNVENTILATED ENCLOSED SPACE.

WORK PRACTICES:
DO NOT REMOVE VENT CAPS. FOLLOW SHIPPING AND HANDLING INSTRUCTIONS, WHICH
ARE APPLICABLE TO THE BATTERY TYPE. TO AVOID DAMAGE TO TERMINALS AND SEALS,
DO NOT DOUBLE-STACK INDUSTRIAL BATTERIES.

SECTION 10: PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION:
NONE REQUIRED UNDER NORMAL HANDLING CONDITIONS. DURING BATTERY FORMATION
(HIGH-RATE CHARGE CONDITION), ACID MIST CAN BE GENERATED WHICH MAY CAUSE
RESPIRATORY IRRITATION. ALSO, IF ACID SPILLAGE OCCURS IN A CONFINED SPACE,
EXPOSURE MAY OCCUR. IF IRRITATION OCCURS, WEAR A RESPIRATOR SUITABLE FOR
PROTECTION AGAINST ACID MIST.

EYES AND FACE:
CHEMICAL SPLASH GOGGLES ARE PREFERRED. ALSO ACCEPTABLE ARE "VISOR-GOGS"
OR A CHEMICAL FACE SHIELD WORN OVER SAFETY GLASSES.

HANDS, ARMS, BODY:
VINYL COATED, VC, GAUNTLET TYPE GLOVES WITH ROUGH FINISH ARE PREFERRED.

OTHER SPECIAL CLOTHING AND EQUIPMENT:
SAFETY SHOES ARE RECOMMENDED WHEN HANDLING BATTERIES. ALL FOOTWEAR MUST
MEET REQUIREMENTS OF ANSI Z41.1 - REV. 1972.

PRECAUTIONS FOR SAFE HANDLING AND USE:

SECTION 11: HYGIENE PRACTICES

FOLLOWING CONTACT WITH INTERNAL BATTERY COMPONENTS, WASH HAND THOROUGHLY
BEFORE EATING, DRINKING, OR SMOKING.

SECTION 12: RESPIRATORY PROTECTION

WEAR SAFETY GLASSES. DO NOT PERMIT FLAMES OR SPARKS IN THE VICINITY OF
BATTERY(S). IF BATTERY ELECTROLYTE (ACID) COMES IN CONTACT WITH CLOTHING,
DISCARD CLOTHING.

SECTION 13: PROTECTIVE MEASURES

A. REMOVE COMBUSTIBLE MATERIALS AND ALL SOURCES OF IGNITION. COVER SILLS WITH SODA ASH (SODIUM CARBONATE) OR QUICKLIME (CALCIUM OXIDE). MIX WELL. MAKE CERTAIN MIXTURE IS NEUTRAL THEN COLLECT RESIDUE AND PLACE IN A DRUM OR OTHER SUITABLE CONTAINER. DISPOSE OF A HAZARDOUS WASTE.

B. WEAR ACID-RESISTANT BOOTS, CHEMICAL FACE SHIELD, CHEMICAL SPLASH GOGGLES, AND ACID-RESISTANT GLOVES. DO NOT RELEASE UN-NEUTRALIZED ACID.

SECTION 14: WASTE DISPOSAL METHOD

NEUTRALIZED ACID MAY BE FLUSHED DOWN THE SEWER. SPENT BATTERIES MUST BE TREATED AS HAZARDOUS WASTE AND DISPOSED OF ACCORDING TO LOCAL STATE, AND FEDERAL REGULATIONS. A COPY OF THIS MATERIAL SAFETY DATA MUST BE SUPPLIED TO ANY SCRAP DEALER OR SECONDARY SMELTER WITH BATTERY.

OTHER HANDLING AND STORAGE PRECAUTIONS: NONE REQUIRED.

SECTION 15: NFPA HAZARD RATING

SULFURIC ACID:  
HEALTH (BLUE) 3  
FLAMMABILITY (RED) 0  
REACTIVITY (YELLOW) 2

SECTION 16: DEPARTMENT OF TRANSPORTATION AND INTERNATIONAL SHIPPING REGULATIONS

PROPER SHIPPING NAME:  
BATTERIES, NON-SPILLABLE, ELECTRIC STORAGE

U.S DOT (US DEPARTMENT OF TRANSPORTATION):  
UNREGULATED, MEETS THE REQUIREMENT OF 49 CFR 173.159(D)

IATA (INTERNATIONAL AIR TRANSPORTATION ASSOCIATION):  
ICAO (INTERNATIONAL CIVIL AVIATION ADMINISTRATION):  
UNREGULATED: MEETS THE REQUIREMENTS OF SPECIAL REVISION A67

IMO (INTERNATIONAL MARITIME DANGEROUS GOODS): UNREGULATED

COMMENTS:  
UNREGULATED, MEETS THE REQUIREMENTS OF SPECIAL REVISION A67 COPOWER SEAL LEAD-ACID BATTERIES ARE CLASSIFIED AS "NON-SPILLABLE" FOR THE PURPOSE OF TRANSPORTATION BY DOT, AND IATA/ICAO AS RESULT OF PASSING THE VIBRATION AND PRESSURE DIFFERENTIAL TEST DESCRIBED IN DOT(49 CFR 173.159(D) AND IATA/ICAO (SPECIAL PROVISION A67).

COPOWER SEAL LEAD-ACID BATTERIES CAN BE SAFELY TRANSPORTED ON DECK, OR UNDER DECK STORED ON EITHER A PASSENGER OR CARGO VESSEL AS RESULT OF PASSING THE VIBRATION AND PRESSURE

DIFFERENTIAL TESTS AS DESCRIBED IN THE REGULATIONS.

TO TRANSPORT THESE BATTERIES AS "NON-SPILLABLE" THEY MUST BE SHIPPED IN A CONDITION THAT WOULD PROTECT THEM FROM SHORT-CIRCUITS AND BE SECURELY PACKAGED SO AS TO WITHSTAND CONDITIONS NORMAL TO TRANSPORTATION BY A CONSUMER, IN OR OUT OF A DEVICE, THEY ARE UNREGULATED THUS REQUIRING NO ADDITIONAL SPECIAL HANDLING OR PACKAGING.

FOR ALL MODES OF TRANSPORTATION, EACH BATTERY OUTER PACKAGE IS LABELED "NON-SPILLABLE" PER 49 CFR 173.159(D). IF YOU REPACKAGE OUR BATTERIES EITHER AS BATTERIES OR AS A COMPONENT OF ANOTHER PRODUCT YOU MUST LABEL THE OUTER PACKAGE "NON-SPILLABLE" PER 49 CFR 173.159(D).