

MATERIAL SAFETY DATA SHEET
KUNG LONG BATTERIES INDUSTRIAL LTD
SEALED MAINTENANCE FREE LEAD ACID BATTERIES

NSN: 614000N087645

Manufacturer's CAGE: KUMGL

Part No. Indicator: A

Part Number/Trade Name: SEALED MAINTENANCE FREE LEAD ACID BATTERIES

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General Information
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Company's Name: KUNG LONG BATTERIES INDUSTRIAL CO LTD

Company's P. O. Box: 23933

Company's City: SAN JOSE

Company's State: CA

Company's Country: US

Company's Zip Code: 95153

Company's Emerg Ph #: 886-581-0413

Company's Info Ph #: 886-581-0413

Safety Data Action Code: A

Record No. For Safety Entry: 001

Tot Safety Entries This Stk#: 001

Status: SMJ

Date MSDS Prepared: 01OCT94

Safety Data Review Date: 10JUN98

MSDS Serial Number: CHJYJ

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Ingredients/Identity Information
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Proprietary: NO

Ingredient: LEAD (SARA 313) (CERCLA) BP: 621F (327.4C); SPEC GRAV: 11.34;

SOL IN WATER: NONE; APPEAR/ODOR: SILVER, GREY (ING 2)

Ingredient Sequence Number: 01

Percent: 70

Ingredient Action Code: A

NIOSH (RTECS) Number: OF7525000

CAS Number: 7439-92-1

OSHA PEL: SEE 1910.1025

ACGIH TLV: 0.15 MG/M3 DUST

Proprietary: NO

Ingredient: ING 1: METAL W/NO ODOR; FL PT: NONE; LEL/UEL: NONE; LD50 (ORAL
RAT): 500 MG/KG

Ingredient Sequence Number: 02

Ingredient Action Code: A

NIOSH (RTECS) Number: 9999999ZZ

OSHA PEL: NOT APPLICABLE

ACGIH TLV: NOT APPLICABLE

Proprietary: NO

6.2; SOL IN WATER: 40 MG/L @ 15C; APPEAR/ (ING 4)

Ingredient Sequence Number: 03

Ingredient Action Code: A

NIOSH (RTECS) Number: 1007507LS

CAS Number: 15739-80-7

OSHA PEL: SEE 1910.1025

ACGIH TLV: 0.15 MG(PB)/M3

Proprietary: NO

Ingredient: ING 3: ODOR: WHITE POWDER; FL PT: NONE; LEL/UEL: NONE

Ingredient Sequence Number: 04

Ingredient Action Code: A

NIOSH (RTECS) Number: 9999999ZZ

OSHA PEL: NOT APPLICABLE

ACGIH TLV: NOT APPLICABLE

Proprietary: NO

NONE; APPEAR/ODOR: BROWN POWDER W/NO ODOR

Ingredient Sequence Number: 05

Ingredient Action Code: A

NIOSH (RTECS) Number: OG0700000

CAS Number: 1309-60-0

OSHA PEL: N/K (FP N)

ACGIH TLV: N/K (FP N)

Proprietary: NO

1.3; SOL IN WATER: 100%; APPEAR/ODOR: CLEAR, (ING 7)

Ingredient Sequence Number: 06

Percent: 20

Ingredient Action Code: A

NIOSH (RTECS) Number: WS5605000

CAS Number: 8014-95-7

OSHA PEL: N/K (FP N)

ACGIH TLV: 1 MG/M3/3 STEL

Proprietary: NO

NONE; LD50 (ORAL RAT): 2140 MG/KG

Ingredient Sequence Number: 07

Ingredient Action Code: A

NIOSH (RTECS) Number: 9999999ZZ

OSHA PEL: NOT APPLICABLE

ACGIH TLV: NOT APPLICABLE

Proprietary: NO

Ingredient: FIBERGLASS SEPARATOR; SOL IN WATER: SLIGHT; APPEAR/ODOR: WHITE
FIBROUS GLASS W/TOX ODOR

Ingredient Sequence Number: 08

Percent: 5

Ingredient Action Code: A

NIOSH (RTECS) Number: 1011817FS

OSHA PEL: N/K (FP N)

ACGIH TLV: N/K (FP N)

Proprietary: NO

Ingredient: 478 POLYSTYRENE; SOL IN WATER: NONE; APPEAR/ODOR: SOLID W/NO
ODOR; FL PT: NONE

Ingredient Sequence Number: 09

Percent: 6

Ingredient Action Code: A

NIOSH (RTECS) Number: 1014605PO

OSHA PEL: N/K (FP N)

ACGIH TLV: N/K (FP N)

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Physical/Chemical Characteristics

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Appearance And Odor: SEE INGS

Boiling Point: SEE INGS

Vapor Density (Air=1): SEE INGS

Solubility In Water: SEE INGS

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Fire and Explosion Hazard Data

Flash Point: NONE

Lower Explosive Limit: SEE INGS

Upper Explosive Limit: SEE INGS

Extinguishing Media: USE MEDIA SUITABLE FOR SURROUNDING FIRE (FP N).

Special Fire Fighting Proc: WEAR NIOSH APPROVED SCBA AND FULL PROTECTIVE EQUIPMENT (FP N).

Unusual Fire And Expl Hazrds: SEALED BATTERIES CAN EMIT HYDROGEN ONLY IF OVERCHARGED (FLOAT VOLTAGE >2.40 VPC). TOX VAPS MAY BE RELEASED IN CASE OF FIRE. TEMPS >300C (572F) MAY (SUP DAT)

Reactivity Data

Stability: YES

Cond To Avoid (Stability): FOR SULFURIC ACID: STABLE AT ALL TEMPERATURES.

Materials To Avoid: FOR SULFURIC ACID: REACTIVE METALS, STRONG BASES, MOST ORGANIC COMPOUNDS.

Hazardous Decomp Products: SULFURIC DIOXIDE, TRIOXIDE, HYDROGEN SULFIDE, HYDROGEN.

Hazardous Poly Occur: NO

Conditions To Avoid (Poly): NOT RELEVANT.

Health Hazard Data

LD50-LC50 Mixture: SEE INGREDIENTS.

Route Of Entry - Inhalation: YES

Route Of Entry - Skin: YES

Route Of Entry - Ingestion: YES

Health Haz Acute And Chronic: ACUTE: LEAD: TOX EFTS ARE ACCUMULATIVE & SLOW TO APPEAR. IT AFFECTS KIDNEYS, REPRO SYS, & CNS. SYMPS OF LEAD OVEREXP ARE ANEMIA, VOMIT, HDCH, STOM PAIN (LEAD COLIC), DIZZ, LOSS OF APPETITE, & MUSCLE & JOINT PAIN. EXPOS TO LEAD FROM BATTERY MOST OFTEN OCCURS DURING LEAD RECLAIM OPERATIONS THRU BRTHG OR (EFTS OF OVEREXP)

Carcinogenicity - NTP: NO

Carcinogenicity - IARC: YES

Carcinogenicity - OSHA: NO

Explanation Carcinogenicity: SULFURIC ACID: IARC MONOGRAPHS, VOLUME 54, PAGE 41, 1992: GROUP 1. ANIMAL: PULMONARY IRRITATION.

Signs/Symptoms Of Overexp: HLTH HAZ: INGEST OF LEAD DUSTS & FUMES.

SULFURIC ACID: STRONG CORR. CONT W/ACID CAN CAUSE SEV BURNS OF SKIN & EYES. INGEST WILL CAUSE GI TRACT BURNS. ACID CAN BE RELEASED IF BATTERY CASE IS DAMAGED/IF VENTS ARE TEMPERED WITH. FIBERGLASS SEPARATOR: FIBROUS GLASS IS AN IRRITANT OF UPPER RESP TRACT, SKIN & EYES. (SUP DAT)

Med Cond Aggravated By Exp: NONE SPECIFIED BY MANUFACTURER.

Emergency/First Aid Proc: SKIN: FLUSH W/WATER. SEE MD IF CONT AREA IS LARGE/BLISTERS FORM. EYES: CALL MD IMMED & FLUSH W/WATER FOR AT LEAST 15 MINUTES, UNTIL MD ARRIVES. INGEST: CALL MD. IF PATIENT IS CONSCIOUS, FLUSH MOUTH W/WATER. HAVE PATIENT DRINK MILK/SODIUM BICARBONATE SOLUTION. DO NOT GIVE ANYTHING BY MOUTH TO AN UNCON PERSON. INHAL: REMOVE TO FRESH AIR. SUPPORT BREATHING (GIVE OXYGEN/ARTIFICIAL RESPIRATION) (FP N).

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Precautions for Safe Handling and Use
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Steps If Matl Released/Spill: IF SULFURIC ACID IS SPILLED FROM BATTERY, NEUTRALIZE ACID W/SODIUM BICARBONATE (BAKING SODA), SODIUM CARBON (SODA ASH)/CALCIUM OXIDE (LIME). FLUSH AREA W/WATER & DISCARD TO SEWAGE SYSTEM. DO NOT ALLOW UNNEUTRALIZED ACID INTO SEWAGE SYSTEM.

Neutralizing Agent: SODIUM BICARBONATE (BAKING SODA), SODIUM CARBON (SODA

ASH)/CALCIUM OXIDE (LIME).

Waste Disposal Method: NEUTRALIZED ACID MAY BE FLUSHED DOWN SEWER. SPENT BATTERIES MUST BE TREATED AS HAZARDOUS WASTE & DISPOSED OF ACCORDING TO LOCAL, STATE, & FEDERAL REGULATIONS. A COPY OF THIS MSDS MUST BE SUPPLIED TO ANY SCRAP DEALER/SECONDARY LEAD SMELTER W/BATTERY.

Precautions-Handling/Storing: PROHIBIT SMOKING, SPARKS, ETC, FROM BATTERY CHARGING AREA. AVOID MIXING ACID WITH OTHER CHEMICALS.

Other Precautions: DUE TO BATTERY'S LOW INTERNAL RESISTANCE & HIGH POWER DENSITY, HIGH LEVELS OF SHORT CIRCUIT CURRENT CAN BE DEVELOPED ACROSS BATTERY TERMINALS. DO NOT SET TOOLS/CABLES ON BATTERY. USE INSULATED TOOLS ONLY. FOLLOW ALL INSTALLATION (SUP DAT)

Control Measures

Respiratory Protection: A NIOSH APPROVED RESPIRATOR SHOULD BE WORN DURING RECLAIM OPERATIONS IF THE TLV IS EXCEEDED.

Ventilation: NONE SPECIFIED BY MANUFACTURER.

Protective Gloves: RUBBER GLOVES.

Eye Protection: ANSI APPRVD CHEM WORKERS GOGGLES (FP N).

Other Protective Equipment: EMERGENCY EYEWASH AND DELUGE SHOWER MEETING ANSI DESIGN CRITERIA (FP N). APRON.

Work Hygienic Practices: PROTECTIVE EQUIPMENT MUST BE WORN IF THE BATTERY IS CRACKED OR OTHERWISE DAMAGED.

Suppl. Safety & Health Data: EXPLO HAZ: RELEASE COMBUST GASES. EFTS OF OVEREXP: LEAD APPEARS ON THE NAVY OCCUP CHEM REPRO HAZ LIST. CONSULT APPROP HLTH PROFESSIONALS CONCERNING LATEST HAZ LIST INFO & SAFE HNDLG & EXPOS INFO (FP N). OTHER PREC: INSTRUCTIONS & DIAGRAMS WHEN INSTALLING/ MAINTAINING BATTERY SYSTEMS.

Transportation Data

Disposal Data

Label Data

Label Required: YES

Technical Review Date: 10JUN98

Label Date: 10JUN98

Label Status: M

Common Name: SEALED MAINTENANCE FREE LEAD ACID BATTERIES

Chronic Hazard: YES

Signal Word: DANGER!

Acute Health Hazard-Severe: X

Contact Hazard-Severe: X

Fire Hazard-None: X

Reactivity Hazard-None: X

Special Hazard Precautions: ACUTE: LEAD: TOXIC EFFECTS ARE ACCUMULATIVE & SLOW TO APPEAR. IT AFFECTS KIDNEYS, REPRODUCTIVE SYSTEM, & CNS. SYMPTOMS OF LEAD OVEREXPOSURE ARE ANEMIA, VOMITING, HEADACHE, STOMACH PAIN (LEAD COLIC) , DIZZINESS, LOSS OF APPETITE, & MUSCLE & JOINT PAIN. EXPOSURE TO LEAD FROM BATTERY MOST OFTEN OCCURS DURING LEAD RECLAIM OPERATIONS THROUGH BREATHING/ INGESTION OF DUST & FUMES. SULFURIC ACID: SEVERE BURNS ON SKIN & EYES. INGEST: GI TRACT BURNS. FIBERGLASS SEPARATOR: IRRIT. CHRONIC: CANCER HAZARD. CONTAINS SULFURIC ACID WHICH IS LISTED AS ANIMAL LUNG CARCINOGEN (FP N). LEAD APPEARS ON THE NAVY OCCUPATIONAL CHEMICAL REPRODUCTIVE HAZARDS LIST (FP N).

Protect Eye: Y

Protect Skin: Y

Protect Respiratory: Y

Label Name: KUNG LONG BATTERIES INDUSTRIAL CO LTD

Label P.O. Box: 23933

Label City: SAN JOSE

Label State: CA

Label Zip Code: 95153

Label Country: US

Label Emergency Number: 886-581-0413