OPTIMA BATTERIES INC -- ENGINE STARTING BATTERIES 34-1050 OR 800S -- 6140-01-378-8232

========== Product Identification ==========

Product ID:ENGINE STARTING BATTERIES 34-1050 OR 800S
MSDS Date:01/04/1999
FSC:6140
NIIN:01-378-8232
Status Code:A
MSDS Number: CJGLV
=== Responsible Party ===
Company Name:OPTIMA BATTERIES INC
Address:5 E MISSISSIPPI AVE
City:DENVER
State:CO
ZIP:80210
Country:US
Info Phone Num:
303-744-5360
Emergency Phone Num:(800)424-9300
Resp. Party Other MSDS Num.:OBI-0001 C
Chemtrec Ind/Phone:(800)424-9300
CAGE:0UJ55
=== Contractor Identification ===
Company Name:OPTIMA BATTERIES INC
Address:17500 E 22ND AVENUE
Box:City:AURORA
State:CO
ZIP:80011
Country:US
Phone:303-448-8899 OR 800-292-4359
CAGE:0UJ55

========== Composition/Information on Ingredients ==========

Ingred Name:LEAD COMPOUNDS
CAS:7439-92-1
RTECS #:OF7525000
Minumum % Wt:68.
Maxumum % Wt:81.
ACGIH TLV:0.15 MG/

M3
EPA Rpt Qty:1 LB
DOT Rpt Qty:1 LB

Ingred Name:SULFURIC ACID ELECTROLYTE
CAS:7664-93-9
RTECS #:WS5600000
Minumum % Wt:17.
Maxumum % Wt:25.
OSHA PEL:1 MG/M3
ACGIH TLV:1 MG/M3
ACGIH STEL:3 MG/M3
EPA Rpt Qty:1000 LBS
DOT Rpt Qty:1000 LBS

Ingred Name:POLYPROPYLENE CASE MATERIAL
CAS:9003-07-0
RTECS #:UD1842000
Minumum % Wt:2.
Maxumum % Wt:6.

Ingred Name:SEPARATOR/PASTER PAPER FIBROUS GLASS
CAS:65997-17-3
Code:F
Minumum % Wt:1.
Maxumum % Wt:4.

========== Hazards Identification =====
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LD50 LC50 Mixture:NONE STATED BY MANUFACTURER
Routes of Entry: Inhalation:NO Skin:NO Ingestion:NO
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:NONE EXPECTED FOR FINISHED PRODUCT UNDER NORMAL CONDITIONS OF USE.
Explanation of Carcinogenicity:NOTA APPLICABLE FOR FINISHED PRODUCT UNDER NORMAL CONDITIONS OF USE.
Effects of Overexposure:NONE EXPECTED FOR FINISHED PRODUCT UNDER NORMAL CONDITIONS OF USE.
Medical Cond Aggravated by

Exposure:NONE EXPECTED FOR FINISHED PRODUCT
UNDER NORMAL CONDITIONS OF USE.

========== First Aid Measures ==========

First Aid:NONE EXPECTED FOR FINISHED PRODUCT UNDER NORMAL CONDITIONS OF USE. INHALED-IF ACID VAPOR RELEAED, REMOVE PERSON TO FRESH AIR. IF BREATHING DIFFICULT, OXYGEN MAY BE ADMINISTERED. IF BREATHING STOPPED, ARTIFICIAL RESPIRATION MAY BE STARTED. SEEK MEDICAL ATTENTION. EYES-IF ELECTROLYTE ENTERS EYES, FLUSH WITH WATER FOR AT

LEAST 15 MINUTES. SEEK PROMPT MEDICAL ATTENTION IF IRRITATION DEVELOPS. SKIN-IF ELECTROLYTE CONTACTS SKIN, FLUSH WITH MILD SOAP & WATER. SEEK MEDICAL ATTENTION IF IRRITATION DEVELOPS. INGESTED-IF ANY MATERIALS INGESTED, SEEK PROMPT MEDICAL ATTENTION.

========== Fire Fighting Measures ==========

Extinguishing Media:MULTIPURPOSE DRY CHEMICAL OR MULTIPURPOSE CARBON DIOXIDE (CO2).
Fire Fighting Procedures:EVACUATE AREA. SELF-CONTAINED BREATHING APPARA
TUS MUST BE WORN TO PREVENT POSSIBLE INHALATION OF ACID MISTS, SMOKE AND DECOMPOSITION PRODUCTS IN A FIRE. REMOVE ALL IGNITION SOURCES. COOL BATTERY (S) T O PREVENT RUPTURE.
Unusual Fire/Explosion Hazard:HYDROGEN GAS MAY BE PRODUCED AND MAY EXPLODE IF IGNITED. REMOVE ALL IGNITION SOURCES. VENTILATE AREA.

========== Accidental Release Measures ==========

Spill Release Procedures:AVOID CONTACT WITH ACID MATERIALS. USE SODA ASH, BAKING SODA OR LIME TO NEUTRALIZE
ACID IF RELEASED.
Neutralizing Agent:SODA ASH, BAKING SODA, LIME.

========== Handling and Storage ==========

Handling and Storage Precautions:DO NOT CARRY BATTERY BY TERMINALS. DO NOT DROP BATTERY, PUNCTURE OR ATTEMPT TO OPEN BATTERY CASE. KEEP AWAY FROM FLAMES DURING AND IMMEDIATELY AFTER CHARGE. AVOID PROLONGED OVERCHARGES IN CONFINED ARE AS. STORE AT AMBIENT ROOM TEMPERATURE. DO NOT SUBJECT PRODUCT TO OPEN FLAME OR FIRE.
Other Precautions:AVOID CONDI

TIONS WHICH COULD CAUSE ARCING BETWEEN
BATTERY TERMINALS. WASH HANDS THOROUGHLY BEFORE EATING OR SMOKING AFTER HANDLING BATTERIES.

========== Exposure Controls/Personal Protection ==========

Respiratory Protection:NOT NECESSARY UNDER NORMAL CONDITIONS OF USE FOR FINISHED PRODUCT.
Ventilation:NOT NECESSARY UNDER NORMAL CONDITIONS OF USE FOR FINISHED PRODUCT.
Protective Gloves:NOT NECESSARY UNDER NORMAL CONDITIONS OF USE FOR FINISHED PRODUCT.
Eye Protection:NOT NECESS
ARY UNDER NORMAL CONDITIONS OF USE FOR
FINISHED PRODUCT.
Other Protective Equipment:NOT NECESSARY UNDER NORMAL CONDITIONS OF USE FOR FINISHED PRODUCT.
Work Hygienic Practices:NOT NECESSARY UNDER NORMAL CONDITIONS OF USE FOR FINISHED PRODUCT.
Supplemental Safety and Health
THE SEALED LEAD ACID BATTERY IS NOT CONSIDERED FLAMMABLE, BUT WILL BURN IF INVOLVED IN A FIRE. SHORT CIRCUIT CAN ALSO RESULT IN FIRE. EVACUATE AREA. SELF-CONTAINED BREATHING APPARATUS MUST BE WORN TO PR
EVENT INHALATION OF ACID MISTS, SMOKE & DECOMPOSITION PRODUCTS IN A FIRE. REMOVE ALL IGNITION SOURCES.

========== Physical/Chemical Properties ==========

HCC:Z4
Appearance and Odor:SEALED LEAD ACID BATTERY.

========== Stability and Reactivity Data ==========

Stability Indicator/Materials to Avoid:YES
NONE STATED BY MANUFACTURER.
Stability Condition to Avoid:AVOID SHORTING, USE ONLY APPROVED CHARGING METHODS. DO NOT PUNCTURE BATTERY CASE.
Hazardous De
composition Products:NONE STATED BY MANUFACTURER.
Conditions to Avoid Polymerization:WILL NOT OCCUR.

========== Toxicological Information ==========

Toxicological Information:THREASHOLD LIMIT VALUE: NONE APPLICABLE FOR FINISHED PRODUCT. ROUTE OF ENTRY: NONE APPLICABLE FOR FINISHED PRODUCT UNDER NORMAL CONDITIONS OF USE. SIGNS OF SYMPTOMS OF ACUTE EXPOSURE: NONE EXPECTED FO R FINISHED PRODUCT UNDER NORMAL CONDITIONS OF USE. CHRONIC EXPOSURE: NONE EXPECTED FOR

FINISHED
PRODUCT UNDER NORMAL CONDITIONS OF USE. EFFECTS OF OVEREXPOSURE, CONDITIONS TO AVOID: NO EXPOSURE EXPEC TED FOR FINISHED PRODUCT.HOWEVER, DO NOT PUNCTURE OR OPEN BATTERY CASE. ACID ELECTROLYTE MAY BE RELEASED.

========== Ecological Information ==========

Ecological:NONE STATED BY MANUFACTURER.

========== Disposal Considerations ==========

Waste Disposal Methods:DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDER
AL REGULATIONS. SEND TO A LEAD RECYCLING FACILITY WHICH FOLLOWS APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS FOR ROUTINE DISPOSAL OF SPENT OR DAMAGED BATTERIES. THE DISTRIBUTOR/USER IS RESPONSIBLE FOR ROUTINE DISPOSITION OF SPENT OR DAMAGED BATTERIES.

========== MSDS Transport Information ==========

Transport Information:SEALED LEAD ACID BATTERY IS NOT A US DOT HAZARDOUS MATERIAL. UNDER DANGEROUS GOODS REGULATIONS, 38TH EDITION, EFFECTIVE JANUA
RY 1, 1997, PRODUCED BY INTERNATIONAL AIR TRANSPORTATION ASSOCIATION (IATA) : OPTIMA BATTERIES ARE CLASSIFIED AS NON-REGULATED BY SPECIAL PROVISIONS A-48 AND A-67 FOR UN NUMBER UN2800. UNDER THE CODE OF FEDERAL REGULATIONS #49, MARCH 1, 1998 EDITION, OPTIMA BATTERIES ARE CLAS SIFIED AS AN EXCEPTION FROM ALL OTHER REQUIREMENTS OR CONDITIONS AS STATED IN: BATTERIES WET, 173:159 (D)(3)(I)[VIBRATION TEST] AND (D)(3)(I)(I)[PRESSURE DIFFERENTIAL TEST].

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= Regulatory Information ==========

SARA Title III Information:NONE STATED BY MANUFACTURER.
Federal Regulatory Information:ACCORDING TO THE OSHA HAZARD COMMUNICATION STANDARD, SEALED LEAD ACID BATTERY IN ITS MANUFACTURED AND SUPPLIED STATE IS CONSIDERED NON-HAZARDOUS.
State Regulatory Information:NONE STATED BY MANUFACTURER.

========== Other Information ==========

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ormation is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever, expressly or implied, warrants this information to be accurate and disclaims all liability for its use. Any person utilizing this document should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.