EXIDE CORP. -- LEAD-ACID BATTERY -- 6140-01-193-6579 ============= Product Identification ======================== Product ID:LEAD-ACID BATTERY MSDS Date:05/01/1991 FSC:6140 NIIN:01-193-6579 MSDS Number: BPYLF === Responsible Party === Company Name: EXIDE CORP. Address:645 PENN ST. Box:14205 City:READING State:PA ZIP:19612-4205 Country:US Info Phone Num:215-378-0527 Emergency Phone Num:215-378-0527 CAGE:MO432 === Contractor Identification === Company Name: CHICAGO INDUSTRIAL TRADING CO. C AGE:OK4U5 Company Name: EXIDE CORP. Address:645 PENN STREET Box:14205 City:READING State:PA ZIP:19601-4205 Country:US Phone:610-378-0500 CAGE:MO432 Company Name: EXIDE CORP.-GENERAL BATTERY CORP Address:645 PENN STREET Box:City:READING State:PA Country:US Phone:215-378-0527/800-424-9300(CHEMTREC) CAGE:08163

ZIP:19601

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

Ingred Name:LEAD (SARA III)

CAS:7439-92-1

RTECS #:OF7525000 Fraction by Wt: 60%

Other REC Limits: 100PPM NIOSH

0

SHA PEL:0.05 MG/M3;1910.1025 ACGIH TLV:0.15 MG/M3;DUST 9293

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

Ingred Name: ANTIMONY (SARA III)

CAS:7440-36-0

RTECS #:CC4025000 Fraction by Wt: 2%

Other REC Limits: NONE RECOMMENDED

OSHA PEL:0.5 MG/M3

ACGIH TLV:0.5 MG SB/M3; 9293

EPA Rpt Qty:5000 LBS DOT Rpt Qty:5000 LBS

Ingred Name: ARSENIC (SARA III)

CAS:7440-38-2

RTECS #:CG0525000 Fraction by Wt: 0.2%

Other REC Limits: NONE RECOMMENDED

OSHA PEL:0.5 MG/M3 (AS)

ACGIH TLV:0.01,A1 MG/M3; 9394

EPA Rpt Qty:1 LB

DOT Rp t Qty:1 LB

Ingred Name: CALCIUM, METAL

CAS:7440-70-2

RTECS #:EV8040000 Fraction by Wt: 0.2%

Other REC Limits: NONE RECOMMENDED

Ingred Name:TIN CAS:7440-31-5

RTECS #:XP7320000 Fraction by Wt: 0.2%

Other REC Limits: NONE RECOMMENDED

OSHA PEL:2 MG/M3

ACGIH TLV:2 MG/M3; 9293

Ingred Name: SULFURIC ACID (SARA III)

CAS:7664-93-9

RTECS #:WS5600000 Fraction by Wt: 10-30%

Other REC Limits: NONE RECOMMENDED

OSHA PEL:1 MG/M3

ACGIH TLV:1 MG/M3; 9293 EPA Rpt Qty:1000 LBS DOT Rpt Qty:1000 LBS

Ingred Name:POLYP

ROPYLENE (USED AS CASE MATERIAL)

CAS:9003-07-0

Other REC Limits: NONE RECOMMENDED

Ingred Name: POLYSTYRENE RESIN (AS A COMPONENT OF THE CASE)

CAS:9003-53-6

Other REC Limits: NONE RECOMMENDED

Ingred Name: ACRYLONITRILE, POLYMER WITH STYRENE (AS A COMPONENT OF THE

CASE).

CAS:9003-54-7

RTECS #:AT6978000

Other REC Limits: NONE RECOMMENDED

Ingred Name: ACRYLONITRILE, POLYMER WITH 1,3-BUTADIENE & STYRENE (AS A

COMPONENT OF THE CASE)

CAS:9003-56-9

RTECS #:AT6970000

Other REC Limits: NONE RECOMMENDED

Ingred Name: STYRENE POLYMER WITH 1,3-BUTADIENE (AS A PART OF THE CASE)

CAS:9003-55-8

RTECS #:WL6478000

Other REC Limits: NONE RECOMMENDED

Ingred Name: POLYVINYL CHLORIDE RESIN (AS A PART OF THE CASE)

CAS:9002-86-2

Other REC Limits: NONE RECOMMENDED

Ingred Name: POLYCARBONATE (AS A PART OF THE CASE)

Other REC Limits: NONE RECOMMENDED

Ingred Name: RUBBER, HARD (AS A PART OF THE CASE)

Other REC Limits: NONE RECOMMENDED

Ingred Name: SILICA, CRYSTALLINE - FUSED (GEL CELL BATTERIES ONLY)

CAS:60676-86-0

RT

ECS #:VV7328000 Fraction by Wt: 10%

Other REC Limits: NONE RECOMMENDED

OSHA PEL:SEE TABLE Z3

ACGIH TLV:0.1 MG/M3 RDUST;9293

Ingred Name: SHEET MOULDING COMPOUND (GLASS REINFORCED POLYESTER)

Fraction by Wt: 10%

Other REC Limits: NONE RECOMMENDED

LD50 LC50 Mixture: NOT REPORTED

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:YES

Health Hazards Acute and Chronic:INHAL:S

EVERE IRRITATION(UPPER

RESPIRATORY TRACT AND LUNGS).INGEST:(H2SO4)SEVERE IRRITATION OF MOUTH,THROAT,STOMACH.LEAD IS SYSTEMICALLY TOXIC.SKIN:SEVERE BURNS.EYES:SEVERE IRRITATION,CORNEAL DAMAGE,BL INDNESS.LEAD POISONING CAN RESULT IN KIDNEY AND REPRODUCTIVE DAMAGE.

Explanation of Carcinogenicity:LEAD IS A CLASS 2B CARCINOGEN.ARSENIC IS LISTED BY NTP,IARC AND OSHA.

Effects of Overexposure:INGEST:(LEAD)ABDOMINAL PAIN,CRAMPING,NAUSEA,VOMITING,DIARRHEA.SKIN:(H2SO4)BURNS,ULCERATI ON

S.

Medical Cond Aggravated by Exposure:SULFURIC ACID FUMES CAN AGGRAVATE PULMONARY CONDITIONS,SKIN DISEAESE(EG.ECZEMA,CONTACT DERMATITIS).LEAD CAN AGGRAVATE KIDNEY,LIVER AND NEUROLOGICAL DISEASES.

First Aid:INHAL:(LEAD)REMOVE FROM EXPOSURE;GARGLE;WASH NOSE AND LIPS;CALL PHYSICIAN.(H2SO4)REMOVE TO FRESH AIR;RESTORE OR ASSIST BREATHING IF NEEDED.INGEST:(LEAD)CALL PHYSICIAN.(H2SO4)GIVE WATER.DO NOT

INDUCE V OMITING!CALL PHYSICIAN.SKIN:FLUSH WITH WATER.REMOVE CONTAMINATED CLOTHING(INCL.SHOES).EYES:FLUSH WITH WATER FOR 15 MINUTES.CALL PHYSICIAN.

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

Lower Limits: 4.1 (H2 GAS)

Upper Limits:74.2

Extinguishing Media: CARBON DIOXIDE, FOAM, DRY CHEMICAL, HALON.

Fire Fighting Procedures:USE POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS.WATER APPLIED TO THE ELECTROLYTE CAUSES IT TO BOIL(SPATTER).WEAR ACID RESISTAN

T CLOTHING.

Unusual Fire/Explosion Hazard: HYDROGEN GAS IS GENERATED DURING CHARGING.

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

Spill Release Procedures:STOP LEAK.CONTAIN/ADSORB SMALL SPILLS WITH SAND,EARTH,VERMICULITE.DO NOT USE COMBUSTIBLE MATERIALS.IF POSSIBLE,NEUTRALIZE(SEE NEUTRALIZERS).WEAR ACID RESISTANT CLOTHING,BOOTS,GLOVES AND FACE SHIELD.DO NOT ALLOW UNNEUTRALIZED ACID INTO SEWER.

Neutralizing Agent:SODA ASH,SODIUM BICARBONATE,LIME.

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

Handling and Storage Precautions:STORE IN A COOL, DRY, WELL-VENTILATED AREA WITH ACID-PROOF FLOORS AND CONTAINMENT CAPACITY. DO NOT STORE OUTDOORS. KEEP AWAY FROM INCOMAPTIBLE MATERIALS.

Other Precautions:MAINTAIN A WATER SUPPLY AND SPILL CONTROL IN THE STORAGE FACILITY.AVOID DAMAGE TO THE CONTAINERS.KEEP AWAY FROM HEAT AND SOURCES OF IGNITION.

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

Respi

ratory Protection:NOT REQUIRED FOR NORMAL SERVICE.WHERE SULFURIC ACID MISTS ARE PRESENT,AN APPROPRIATE NIOSH/MSHA RESPIRATOR MUST BE USED.

Ventilation: AREA MUST BE WELL VENTILATED. IF MECHANICAL VENTILATION IS USED, THE COMPONENTS MUST BE ACID RESISTANT.

Protective Gloves: RUBBER/PLASTIC ACID-RESISTANT W/GAUNTLET

Eye Protection: CHEMICAL GOGGLE/FACE SHIELD

Other Protective Equipment: ACID RESISTANT APRON. FOR SEVERE CONDITIONS: ACID PROOF CLOTHING AND BOOTS.

Work Hygienic Practices:WASH

HANDS.SEPERATE WORK CLOTHES FROM STREET

CLOTHES.LAUNDER WORK CLOTHES BEFORE REUSE.KEEP FOOD AWAY FROM WORK AREA.

Supplemental Safety and Health

AN UNLIMITED WATER SUPPLY SHOULD BE PRESENT TO HANDLE SULFURIC ACID EMERGENCIES.SULFURIC ACID(CONCENTRATED) IS REACTIVE WITH WATER.

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

HCC:C1

Boiling Pt:B.P. Text:203F,95C

Vapor Pres:10 Vapor Density:>1 Spec Gravity:1.23-1.35 Viscosity:NOT RELEVANT Evaporation Rate & Description Reference: