

C & D TECHNOLOGIES INC -- LEAD-ANTIMONY BATTERY, 14-330 -- 6140-01-323-1328

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

Product ID:LEAD-ANTIMONY BATTERY, 14-330

MSDS Date:11/06/1997

FSC:6140

NIIN:01-323-1328

Status Code:A

MSDS Number: CJDFV

=== Responsible Party ===

Company Name:C & D TECHNOLOGIES INC

Address:1400 UNION MEETING RD

Box:3053

City:BLUE BELL

State:PA

ZIP:19422-0858

Country:US

Emergency Phone N

um:610-828-9309

Preparer's Name:S.J. KELLY

Chemtrec Ind/Phone:(800)424-9300

CAGE:1CTA5

=== Contractor Identification ===

Company Name:C & D TECHNOLOGIES INC

Address:1400 UNION MEETING RD

Box:3053

City:BLUE BELL

State:PA

ZIP:19422-0858

Country:US

Phone:215-619-2700

CAGE:1CTA5

Company Name:POWER SYSTEMS ENGINEERING

Address:16711 RICHMOND AVE SUITE 2

Box:City:HAZEL CREST

State:IL

ZIP:60429-1069

Country:US

Phone:708-210-2500

Contract Num:SP0430-99-M-F554

CAGE:04NK4

=====
Composition/Inform

ation on Ingredients =====

Ingred Name:LEAD, LEAD COMPOUNDS
CAS:7439-92-1
RTECS #:OF7525000
Minumum % Wt:65.
Maxumum % Wt:70.
Other REC Limits:NONE RECOMMENDED
OSHA PEL:0.05 MG/M3
ACGIH TLV:0.15 MG/M3
EPA Rpt Qty:1 LB
DOT Rpt Qty:1 LB

Ingred Name:SULFURIC ACID
CAS:7664-93-9
RTECS #:WS5600000
Minumum % Wt:11.
Maxumum % Wt:14.
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:ANTIMONY
CAS:7440-36-0
RTECS #:CC4025000
Minumum % Wt
:1.
Maxumum % Wt:2.
OSHA PEL:0.5 MG/M3
ACGIH TLV:0.5 MG/M3
EPA Rpt Qty:5000 LBS
DOT Rpt Qty:5000 LBS

Ingred Name:ARSENIC
CAS:7440-38-2
RTECS #:CG0525000
< Wt:1.
OSHA PEL:0.5 MG/M3
ACGIH TLV:0.01 MG/M3
EPA Rpt Qty:1 LB
DOT Rpt Qty:1 LB

Ingred Name:COPPER
CAS:7440-50-8
RTECS #:GL5325000
< Wt:1.
OSHA PEL:1 MG/M3
ACGIH TLV:1 MG/M3
EPA Rpt Qty:5000 LBS
DOT Rpt Qty:5000 LBS

Ingred Name:WATER
CAS:7732-18-5
RTECS #:ZC0110000
Minumum % Wt:3.5
Maxumum % Wt:4.5

m % Wt:10.

Maxumum % Wt:15.

=====
===== Hazards Identification =====

LD50 LC50 Mixture:LD50 (ORAL, RAT) 2140 MG/KG

Routes of Entry: Inhalation:YES Skin:NO Ingestion:YES

Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:YES

Health Hazards Acute and Chronic:ACUTE ; TISSUE DESTRUCTION ON CONTACT.

MAY CAUSE 2ND AND 3RD DEGREE BURNS OR BLINDNESS. INGESTION WILL

CAUSE CORROSIVE BURNS ON CONTACT. MAY BE FATAL IF SWALLOWED.

CHRONIC - INHALATION OF MISTS MA

Y CA USE UPPER RESPIRATORY

IRRITATION.

Explanation of Carcinogenicity:CONTAINS ARSENIC AND LEAD.

Effects of Overexposure:IRRITATION AND BURNING OF EXPOSED TISSUES

Medical Cond Aggravated by Exposure:RESPIRATORY DISORDERS MAY BE

AGGRAVATED BY PROLONGED INHALATION OF MISTS.

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

First Aid:OBTAIN MEDICAL ATTENTION IMMEDIATELY. INHALED: REMOVE FROM
EXPOSURE TO FRESH AIR IMMEDIATELY. IF NOT BREATHING, GIVE

ARTIFICIAL RE

SPARATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.

EYES: IMMEDIATELY FLUSH EYE WITH PLENTY OF WATER FOR AT LEAST 15

MINUTES. OCCASIONALLY LIFTING THE UPPER AND LOWER LIDS. DO NOT

ALLOW VICTIM TO RUB OR KEEP EYES CLOSED. SKIN: FLUSH WITH LARGE

AMOUNT OF RUNNING WATER F OR AT LEAST 15 MINUTES. INGESTION: DO NOT

INDUCE VOMITING. IF VICTIM IS CONSCIOUS AND ALERT, WASH OUT MOUTH

WITH RUNNING WATER. DRINK LARGE AMOUNT OF MILK OR WATER.

=====
===== Fire Fighting M

asures =====

Extinguishing Media:DRY CHEMICAL, HALON, OR CARBON DIOXIDE

Fire Fighting Procedures:VENTILATE THE AREA WELL. SCBA AND ACID

PROTECTIVE CLOTHING ARE RECOMMENDED.

Unusual Fire/Explosion Hazard:HYDROGEN GAS MAY BE PRESENT. HYDROGEN GAS

AND ACID MIST IS GENERATED UPON OVERCHARGING OR IN FIRE. VENTILATE

AREA.

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

Spill Release Procedures:NEUTRALIZE ANY SPILLED ELECTROLYTE OR EXPOSED
BATTER

Y PARTS WITH SODA ASH OR SODIUM BICARBONATE (FORMS CARBON DIOXIDE) UNTIL FIZZING STOPS. PH SHOULD BE NEUTRAL (6-8). NEUTRALIZED, SPILL IS NON-HAZAR DOUS. PLACE BROKEN BATTERY IN A HEAVY GAUGE PLASTIC BAG OR NON-METALLIC CONTAINER. PROVIDE ADEQUATE VENTILATION, HYDROGEN GAS MAY BE GIVEN OFF. KEEP UNTRAINED INDIVIDUALS AWAY FROM SPILLED MATERIALS.

Neutralizing Agent:SODA ASH, SODIUM CARBONATE, SODIUM BICARBONATE, LIME

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

Handling and Storage Precautions:STORE IN A COOL, DRY AREA AWAY FROM COMBUSTIBLES. DO NOT STORE IN SEALED, UNVENTILATED AREAS. AVOID OVERCHARGING AND OVERHEATING. DO NOT USE ORGANIC SOLVENTS OR OTHER THAN RECOMMENDED CHEMICAL CLEANER S ON THE BATTERIES.

Other Precautions:DO NOT TOUCH BROKEN OR LEAKING BATTERIES. AVOID MECHANICAL OR ELECTRICAL ABUSE. AVOID SHORT CIRCUITS. KEEP BATTERIES AWAY FROM SMALL CHILDREN. STORE IN A WELL VENTILATED AREA. KEEP IGNITION SOU RCES AW AY FROM CHARGING BATTERIES.

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

Respiratory Protection:NIOSH APPROVED ACID MIST RESPIRATOR, IF OSHA PEL IS EXCEEDED.

Ventilation:GENERAL ROOM VENTILATION SHOULD BE SUFFICIENT DURING NORMAL USE AND HANDLING. RECOMMEND 2 TO 3 ROOM AIR CHANGES PER HOUR TO PREVENT BUILUP OF HYDROGEN GAS.

Protective Gloves:RUBBER OR NEOPRENE FOR LEAKERS

Eye Protection:CHEMICAL GOGGLES OR SAFETY GLASSES WITH SIDESHIELD AND A FULL FACE SHIELD(LEAK)

Other Protective Equipment:ACID RESISTANT APRON OR CLOTHES

Work Hygienic Practices:DO NOT WEAR METALLIC JEWELRY WHEN WORKING WITH BATTERIES. USE NON-CONDUCTIVE TOOLS ONLY. DISCHARGE STATIC ELECTRICITY PRIOR TO WORKING ON A BATTERY. MAINTAIN AN EYEWASH, FIRE EXTINGUISHER NEARBY.

Supplemental Safety and Health

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

HCC:C1

Boiling Pt:=112.8C, 235.F

Vapor Pres:1 MM @ 145.8

Vapor Density:>1 (AIR=1)

Spec G

ravity:ACID = 1.285 +/- .010
Evaporation Rate & Reference: