

PIEDMONT DIELECTRICS CORP -- E-313-A, 608 -- 8010-01-462-7056

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

Product ID:E-313-A, 608  
MSDS Date:09/11/1989  
FSC:8010  
NIIN:01-462-7056  
Status Code:A  
Kit Part:Y  
MSDS Number: CJSBM  
=== Responsible Party ===  
Company Name:PIEDMONT DIELECTRICS CORP  
Box:729  
City:WOODRUFF  
State:SC  
ZIP:29388  
Country:US  
Info Phone Num:803-476-8141  
Emergency Phone Num:803-476-8141  
CAGE:4U97  
1

=== Contractor Identification ===  
Company Name:PIEDMONT DIELECTRICS CORP  
Box:729  
City:WOODRUFF  
State:SC  
ZIP:29388  
Country:US  
Phone:803-476-8141  
Contract Num:N00406-99-M-A778  
CAGE:4U971

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

Ingred Name:ANTIMONY TRIOXIDE (TLV: 500 MG/M3 (MFR))  
CAS:1309-64-4  
RTECS #:CC5650000  
= Wt:5.7  
OSHA PEL:0.5 MG/M3  
ACGIH TLV:0.5 MG/M3  
EPA Rpt Qty:1000 LBS  
DOT Rpt Qty:1000 LBS

Ingred Name:ALUMINUM HYDROXIDE (AL(OH)3); HYDRATED ALUMINA  
CAS:216

45-51-2  
RTECS #:BD0940000  
= Wt:47.1

Ingred Name:BROMINE  
CAS:7726-95-6  
RTECS #:EF9100000  
= Wt:9.5  
OSHA PEL:0.7 MG/M3;0.1 PPM  
ACGIH TLV:0.66 MG/M3;0.1 PPM  
ACGIH STEL:1.3 MG/M3;0.2 PPM

Ingred Name:BORON OXIDE  
CAS:1303-86-2  
RTECS #:ED7900000  
&lt; Wt:.5  
OSHA PEL:15 MG/M3  
ACGIH TLV:10 MG/M3

Ingred Name:CHROMIUM, ION (CR3+); (CHROMIUM (3) COMPOUNDS)  
CAS:16065-83-1  
RTECS #:GB6261000  
&lt; Wt:.5  
ACGIH TLV:0.5 MG/M3

Ingred Name:MANGANESE; (MANGANESE COMPOUNDS)  
CAS:7439-96-5  
RTECS #:OO9275000  
&lt; Wt:.5  
5  
OSHA PEL:C5 MG/M3  
ACGIH TLV:5 MG/M3

Ingred Name:NICKEL; (NICKEL COMPOUNDS)  
CAS:7440-02-0  
RTECS #:QR5950000  
&lt; Wt:.5  
OSHA PEL:1 MG/M3  
ACGIH TLV:1 MG/M3

Ingred Name:ZINC OXIDE (ZNO)  
CAS:1314-13-2  
RTECS #:ZH4810000  
&lt; Wt:.5  
OSHA PEL:15 MG/M3  
ACGIH TLV:10 MG/M3

Ingred Name:ZIRCONIUM; (ZIRCONIUM COMPOUNDS)  
CAS:7440-67-7  
RTECS #:ZH7070000  
&lt; Wt:.5  
ACGIH TLV:5 MG/M3  
ACGIH STEL:10 MG/M3

Ingred Name:1,4-BUTANEDIOL DIGLYCIDYL ETHER  
CAS:2425-79-8  
RTECS #:EJ5100000

Ingred Name:ARYL GLYCIDYL ETH

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

LD50 LC50 Mixture:LD50: (ORAL, RAT) 5000 MG/KG

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES

Reports of Carcinogenicity:NTP:YES IARC:YES

Health Hazards Acute and Chronic:IRRITATION: SKIN: MODERATE (RABBIT)

SPI CLASS 3. EYE: MILD (RABBIT). SENSITIZATION: POTENTIAL

SENSITIZER. RESPIRATORY: MAY CAUSE SENSITIZATION. OVEREXPOSURE

EFFECTS: IRRITATION, SENSITIZATION AND DERM ATITIS.

Explanation of Carcinogenicity:ANTIMONY TRIOXIDE: IARC MONOGRAPHS, VOL

47, PG 291, 1989: GROUP 2B. NICKEL COMPOUNDS: IARC MONOGRAPHS, VOL

49, PG 257, 1990: GROUP 2B. NTP 8TH ANNUAL REPORT ON CARCINOGENS,

1998: ANTICIPATED TO BE CARCINOGEN.

Effects of Overexposure:SEE HEALTH HAZARDS.

Medical Cond Aggravated by Exposure:ALLERGY, ECZEMA OR SKIN CONDITIONS.

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

First Aid:INHALATION: REMOVE TO FRESH AIR. IF BREATHING IS DIFFICULT,  
GIVE ARTIFICIAL RESPIRATION AND OXYGEN. INGESTION: IF UNCONSCIOUS,

GIVE WATER AND MILK. INDUCE VOMITING, CALL A PHYSICIAN. SKIN: WASH

THOROUGHLY WITH SOAP AND WATER. EYES: IMMEDIATELY FLUSH WITH WATER

FOR AT LEAST 15 MINUTES. CALL A PHYSICIAN. CLOTHING: REMOVE

CONTAMINATED CLOTHING, WASH BEFORE REUSE. DISCARD CONTAMINATED

SHOES.

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

Flash Point Method:PMCC

Flash Point:185.6C, 366.F

Extinguishing Media:WATER MIST, FOAM, CARBON DIOXIDE, DRY CHEMICAL.

Fire Fighting Procedures:USE NIOSH APPROVED SCBA AND FULL PROTECTIVE

EQUIPMENT .

Unusual Fire/Explosion Hazard:COMBUSTION OR DECOMPOSITION PRODUCTS MAY  
BE TOXIC. BROMINE MAY BE LIBERATED.

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

Spill Release Procedures:SPILLS: ABSORB AND SWEEP UP INTO APPROVED

WASTE DISPOSAL CONTAINERS. FLUSH CONTAMINATED AREAS WITH WATER.

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

=====

Handling and Storage Precautions:MAY CAUSE IRRITATION AND SENSITIZATION. STORE IN TIGHTLY CLOSED CONTAINERS. AVOID BREATHING VAPOR OR MIST. AVOID CONTACT WITH EYES, SKIN AND CLOTHING. USE WITH ADEQUATE VENTILATION. KEEP AWAY FROM HEAT AND OPEN FLAME. WASH THOROUGHLY AFTER HANDLING AND BEFORE EATING OR DRINKING OR SMOKING.

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

Respiratory Protection:NIOSH APPROVED ORGANIC VAPOR MASK.

Ventilation:LOCAL EXHAUST

: RECOMMENDED. MECHANICAL EXHAUST (GENERAL): RECOMMENDED.

Protective Gloves:CHEMICALLY IMPERVIOUS GLOVES.

Eye Protection:ANSI APPROVED CHEMICAL WORKERS GOGGLES .

Other Protective Equipment:EYE WASH AND DELUGE SHOWER MEETING ANSI DESIGN CRITERIA . SAFETY SHOES.

Supplemental Safety and Health

PHYSICAL DATA: MOLECULAR WEIGHT: N/A. IDENTIFY INFORMATION: CHEMICAL NAME AND SYNONYMS: BROMINATED EPOXY RESIN; CHEMICAL FAMILY: FILLED EPOXY CASTING RESIN.

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

Decomp Temp:=185.C, 365.F

Solubility in Water:INSOLUBLE

Appearance and Odor:GRAY LIQUID; NO ODOR.

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

Stability Indicator/Materials to Avoid:YES STRONG OXIDIZING AGENTS.

Stability Condition to Avoid:DECOMPOSITION TEMPERATURES: 185C(363F).

Hazardous Decomposition Products:CARBON DIOXIDE, CARBON MONOXIDE AND HYDROGEN BROMIDE UPON BURNING.

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

=====

Ecological:SCQMD INFORMATION: IS THERE A PHOTOCHEMICALLY REACTIVE MATERIAL PRESENT? NO. WHAT IS THE % BY VOLUME OF PHOTOCHEMICALLY REACTIVE MATERIAL? 0. WHAT IS THE VOC CONTENT? 40G/L. WHAT IS THE VAPOR PRESSURE OF VOC'S?