Product ID:ACI ALUMIBOND 1200 MSDS Date:10/01/1991 FSC:8030 NIIN:00-057-2354 MSDS Number: BVZDH === Responsible Party === Company Name:ACI CHEMICALS INC Address:140 INDUSTRIAL STREET City:LANCASTER State:TX ZIP:75134-5000 Country:US Info Phone Num:214-227-2241 Emergency Phone Num:214-227-2241 CAGE:GO410

=== Contractor Identification === Company Name:ACI CHEMICALS INC Address:140 INDUSTRIAL ST City:LANCASTER State:TX ZIP:75134-5000 Country:US Phone:214-227-2241 CAGE:GO410

Ingred Name:CHROMIC ACID (SARA III) CAS:7738-94-5 RTECS #:GB2450000 Fraction by Wt: 40-60% Other REC Limits:NONE RECOMMENDED ACGIH TLV:0.5 MG/M3 EPA Rpt Qty:10 LBS DOT Rpt Qty:10 LBS

Ingred Name:POTASSIUM FERRICYANIDE CAS:13746-66-2 RTECS #:LJ8225000 Frac tion by Wt: 5-15% Other REC Limits:NONE RECOMMENDED ACGIH TLV:5 MG/M3

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:YES IARC:YES
Explanation of Carcinogenicity:BASED ON 100% CHROMIC ACID FLAKE: NTP: KNOWN TO BE CARCINOGENIC. IARC SUFFICIENT EVIDENCE FOR CARCINOGENICITY.
Effects of Overexposure:INHALATION OF DUST OR MIST MAY CAUSE IRRITATION OF THE NASAL SEPTUM AND RESPI
RATORY TRACT. MAY CAUSE MODERATE IRRITATION OR CONJUNCTIVITES. CAN CAUSE SEVERE BURNS NOT IMMEDIATELY PAINFUL OR VISIBLE. S KIN CONTACT CAN CAUSE EXTERNAL ULCERS AND ULCERATION OF BROKEN SKIN, 'CHROME SORES.'
Medical Cond Aggravated by Exposure:N/K NOTE TO DR: MASSIVE OVEREXPOSURE TO SLUTIONS COULD LEAD TO KIDNEY FAILURE & DEATH (AVOIDED THROUGH USE OF EARLY RENAL DIALYSIS).ASCROBIC ACID (IV) EFFECTIVE PREVENT RENAL FAILURE.\*

======= First Aid Measur

First Aid:EYES: IMMED FLUSH W/WATER AT LEAST 15 MIN,HOLDING LIDS APART. WASHING W/IN 1 MIN ESSENTIAL FOR MAX EFFECTIVENESS. GET MED AID IMMED. SKIN:WASH W/WATER & SOAP AT LEAST 15 MIN. REMOVE CONTAM FOOTWEAR & CLOTH & WASH BEFORE REUSE. DISCARD FOOTWEAR WHICH CANNOT BE DECONTAMINATED. GET IMMED MED AID. INHAL: REMOVE TO FRESH AIR ASAP.IF BREATHING STOPPED, GIVE ARTIF RESP IMMED. GIVE OXYGEN IF AVAILABLE.\*\*

======= Fire Fighting

Extinguishing Media:WATER FOG, DRY CHEMICAL OR CARBON DIOXIDE \* 1% SOLUTION.

Fire Fighting Procedures:UNDER FIRE CONDITIONS, DECOMPOSING MAT'L MAY FORM HOT VISCOUS FOAM. SELF CONTAINED BREATHING APPARATUS SHOULD BE WORN BY FIRE FIGHTERS IN AREA WHERE MAT'L STORED Unusual Fire/Explosion Hazard:OXIDIZER. AVOID CONTACT WITH ORGANIC MATERIALS.

Spill Release Procedures:REM

OVE AS MUCH AS POSSIBLE.THEN TREAT SPILL

AREA W/REDUCE AGENT TO CONVERT HEXAVALENT CHROME TO TRIVALENT FORM & NEUTRALIZE W/WEAK BASE.FOLLOW NEUTRALIZATN,SOAK UP W/INERT ABSORB PLACE IN CLOSED LABEL ED CNTNR.STORE IN SAFE PLACE.NEVER FLUSH TO SEWER.

Neutralizing Agent:WEAK BASE: SODA ASH, CAUTIC SODA OR LIME.

Handling and Storage Precautions:WEAR APPROPRIATE SAFETY EQUIPMENT WHEN HANDLING. DON'T STORE IN ARE

AS OF HIGH HUMIDITY. DON'T STORE IN

CLOSE PROXIMITY TO COMBUSTIBLE MATERIALS.

Other Precautions:STORE IN CLOSED CNTNRS AWAY FROM SOURCES OF HEAT.WASH DOWN EQUIP W/LRG AMTS WATER & DISPOSE OF RESULTANT RESIDUE AS INDICATED IN WASTE DISPOSAL.DISPOSE OF EMPTY CNTNRS IN ACCORD W/FED,STATE,LOCAL REGS .FOLLOW ALL DOT LABELS ON EMPTY DRUMS.

Respiratory Protection: USE A NIOSH/MSHA APPROVED RESPIRATOR WHERE DUSTS, M

ISTS, FUMES MAY BE GENERATED.

Ventilation: USE ADEQUATE LOCAL EXHAUST VENTILATION WHERE DUSTS OR FUMES ARE GENERATED.

Protective Gloves:NEOPRENE GLOVES

Eye Protection: FACE SHIELD & CHEMICAL GOGGLES

Other Protective Equipment:SUFFICIENT CLOTHING AND PROTECTIVE GARMENTS TO MINIMIZE SKIN CONTACT.

Work Hygienic Practices: WASH HANDS THOROUGHLY AFTER HANDLING PRODUCT. Supplemental Safety and Health

\* SKIN ULCERS MAY BE TREATED BY REMOVAL FROM EXPOSURE, DAILY CLEANSING, DEBRIDEMENT & APPLICATN

OF ANTIBIOTIC CREAM & DRESSING.

\*\* IF CONSCIOUS IRRIGATE NASAL PASSAGES & MOUTH W/WATER.GET ME D AID IMMED. INGEST:NOTHING BY MOUTH TOUNCONSCIOUS.GIVE LRG QTY WATER.INDUCE VOMIT.KEEP AIRWAY CLEAR.GET MED AID IMMED.

HCC:D3 pH:1.81 \* Solubility in Water:COMPLETE Appearance and Odor:DARK RED POWDER WITH SLIGHT ODOR

Stability Indicator/Mat

erials to Avoid:YES STRONG OXIDIZING AGENT,EVEN IN SOLUTION.AVOID CONTACT W/ORGANIC MATERIALS.PRODUCT HYDROSCOPIC.DONT STORE IN HUMID PLACES Stability Condition to Avoid:NONE KNOWN Hazardous Decomposition Products:PRODUCT CONTAINS POTASSIUM FERRICYANIDE WHICH DECOMPOSES ON STRONG HEATING TO EVOLVE HIGHLY TOXIC FUMES.

Waste Disposal Methods:HEXAVALENT CHROME IN SOLUTN REDUCED TO TRIVALENT CHROME BY REDUCING (SOD

IUM BISULFITE & BISULFITE, SULFUR

DIOXIDE,FERROUS SULFITE OR CHLORIDE.REDUCED CHROME PRECIPITATD AS CHROMIC OXIDE BY NEUTRALZNG TO PH 7.5.DISPOSE IN ACCORD W/FED,STATE,LOCAL REGS.

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