## **\*\*** TECHNIC, INC. MATERIAL SAFETY DATA SHEET

Suituric Acid  H 2504  TWA = 1.0 mg/M 3 ACGI  H 2504  This product is regulated as a toxic chemical under Section 313 of Title III/SARA, and 40 CFR, Part 372.  This product is not regulated by the California Proposition 55 list.  For purposes of the New Jersey Right To Know Law, the contents are partially unknown.  All ingredients are listed in the TSCA inventory.  SECTION III  PHYSICAL PROPERTIES  VAPOR PRESSURE (mm Hg)  N.A. SPECIFIC GRAVITY:  VAPOR PRESSURE (mm Hg)  N.A. MELTING POINT (degrees F)  BULING POINT (degrees F)  BULING POINT (degrees F)  BULING POINT (degrees F)  BULING POINT (degrees F)  FIRE AND EXPLOSION  FIRE AND EXPLOSION  FIRE AND EXPLOSION  FIRE AND EXPLOSION  WATER SPRAY  CARBON DIOXIDE  WATER SPRAY  CARBON DIOXIDE  DRY CHEMICAL  Wear a NIOSH/MSHA approved, self-contained breathing apparatus and protective gear, if fully involved in a fire.			DENTIFICATION	
TECHNIC, INC.  1 SPECTACLE STREET  INAME OF PREPARER: WILLIAM A. WILSON  DATE PREPARED: August 10, 1995  EMERGENCY PHONE: (401)781-6100  EMERGENCY PHONE: (401				
TECHNIC, INC.  1 SPECTACLE STREET  CRANSTON, RI 02910  EMERGENCY PHONE: (401)781-6100  DATE PREPARED: August 10, 1995  EMPOSITE AND EMPOSURE LIMITS  TWA = 1.0 mg/M 3 ACGI  STEL = 3.0 mg/M 3 ACGI  TWA = 1.0 mg/M 3 ACGI  TWA = 1.0 mg/M 3 ACGI  STEL = 3.0 mg/M 3 ACGI  TWA = 1.0 mg/M 3 A			Sulfate Pentahydrat	e, Sulfuric Acid
1 SPECTACLE STREET CRANSTON, RI 02910 DATE PREPARED: August 10, 1995 EMERGENCY PHONE: (401)781-6100 DATE PREPARED: August 10, 1995 EMERGENCY PHONE: (401)781-6100  SECTION II  HAZARDOUS INGREDIENTS  CHEMICAL NAMES CAS NUMBER PERCENT CUSO 4 5H20 Suffuric Acid 7758-99-8 6.89% TWA = 1.0 mg (as Cu)/M3 ACGI TWA = 1.0 mg (as Cu)/M3 ACGI TWA = 1.0 mg/M3 ACGI TWA = 1.0 mg/		ESS:		
### PREPARED: August 10, 1995	1 SPECTACLE STREET		NAME OF PR	EPARER: WILLIAM A. WILSON
CHEMICAL NAMES  CAS NUMBER  COSPORT Sulfate Pentahydrate  CUSO 4 5H2O  Sulfuric Acid  H 2 SO 4  This product is regulated as a toxic chemical under Section 313 of Title III/SARA, and 40 CFR, Part 372.  This product is not regulated by the California Proposition 65 list. For purposes of the New Jersey Right 10 Know Law, the contents are partially unknown.  All ingredients are listed in the TSCA inventory.  SECTION III  PHYSICAL PROPERTIES  WAPOR PRESSURE (mm Hg)  N.A.  SPECIFIC GRAVITY: WAPOR PRESSURE (mm Hg)  N.A.  MELTING POINT (degrees F)  BIUS Solution; odorless.  SECTION IV.  SECTION IV.  FIRE AND EXPLOSION  N.A.  LOWER LIMIT  N	EMERGENCY PHONE: (401)781-61		DATE PREPAR	PED: August 10, 1995
CHEMICAL NAMES  Copper Sulfate Pentahydrate  CuSO 4 SH2O  Sulfuric Acid  H 2 SO 4  This product is regulated as a toxic chemical under Section 313 of Title III/SARA, and 40 CFR, Part 372. This product is not regulated by the California Proposition 65 list. For purposes of the New Jersey Right To Know Law, the contents are partially unknown.  All ingredients are listed in the TSCA inventory.  SECTION III  PHYSICAL PROPERTIES  WAPOR PRESSURE (mm Hg)  N.A. SPECIFIC GRAVITY:  WAPOR PRESSURE (mm Hg)  N.A. MELTING POINT (degrees F)  BULBURITY IN WATE:  Completely soluble.  Bilue solution; adorless.  BCTION IV.  FIRE AND EXPLOSION  N.A. (Does not burn.)  N.A. (DOES	24 hour Emergency: Chem Trec			
Copper Sulfate Pentahydrate CusO 4 5H2O  Sulfuric Acid H 2 SO 4  This product is regulated as a toxic chemical under Section 313 of Title III/SARA, and 40 CFR, Part 372. This product is not regulated by the California Proposition 65 list. For purposes of the New Jersey Right To Know Law, the contents are partially unknown. All ingredients are listed in the TSCA inventory.  SECTION III  PHYSICAL PROPERTIES  WAPOR DENSITY (AIR=1) N.A. SPECIFIC GRAVITY: WAPOR RESSURE (mm Hg) N.A. MELTING POINT (degrees F) SOUNDBILTY IN WATER: Completely soluble.  PHYSICAL PROPERTIES  SECTION IV.  FIRE AND EXPLOSION  N.A. BOILING POINT (degrees F) Blue solution; odorless.  SECTION IV.  FIRE AND EXPLOSION  N.A. (Does not burn.) N.A. UPPER LIMIT N.A.	SECTION II	HAZARDOUS IN	GREDIENTS	
Sulfuric Acid H 2504  This product is regulated as a toxic chemical under Section 313 of Title III/SARA, and 40 CFR, Part 372. This product is not regulated by the California Proposition 65 list. For purposes of the New Jersey Right To Know Law, the contents are partially unknown. All ingredients are listed in the TSCA inventory.  SECTION III  PHYSICAL PROPERTIES  WAPOR PRESSURE (mm Hg) N.A. SPECIFIC GRAVITY: WAPOR PRESSURE (mm Hg) N.A. MELTING POINT (degrees F) BOULDISILITY IN WATER: Completely soluble. PHANDERANCE AND ODOR: Blue solution; adorless.  SECTION IV.  FIRE AND EXPLOSION  N.A. (Does not burn.) N.A. (DOES INIT IN ALL OF	CHEMICAL NAMES	CAS NUMBER	PERCENT	EXPOSURE LIMITS
This product is regulated as a toxic chemical under Section 313 of Title III/SARA, and 40 CFR, Part 372.  This product is not regulated by the California Proposition 65 list.  For purposes of the New Jersey Right To Know Law, the contents are partially unknown.  All ingredients are listed in the TSCA inventory.  SECTION III  PHYSICAL PROPERTIES  VAPOR PRESSURE (mm Hg)  N.A. SPECIFIC GRAVITY:  VAPOR PRESSURE (mm Hg)  N.A. MELTING POINT (degrees F)  SOCIEDBUTY IN WATER: Completely soluble.  PHYSICAL PROPERTIES  VAPOR PRESSURE (mm Hg)  N.A. BOILING POINT (degrees F)  SOCIEDBUTY IN WATER: Completely soluble.  PH  SOCIEDBUTY IN WATER IN ALL SOCIEDBUTY IN		7758-99-8	6.89%	TWA = 1.0 mg (as Cu)/M3 ACGIH
This product is not regulated by the California Proposition 65 list. For purposes of the New Jersey Right To Know Law, the contents are partially unknown.  All ingredients are listed in the TSCA inventory.  SECTION III  PHYSICAL PROPERTIES  WAPOR DENSITY (AIR=1)  N.A. SPECIFIC GRAVITY: WAPOR PRESSURE (mm Hg)  N.A. MELTING POINT (degrees F) BOILING POINT		7664-93-9	16.05%	TWA = 1.0 mg/M <sup>3</sup> ACGIH STEL = 3.0 mg/M <sup>3</sup> ACGIH
VAPOR PRESSURE (mm Hg)  EVAPORATION RATE (BUTYL ACETATE=1)  SOLUBILITY IN WATER:  Completely soluble.  Blue solution; odorless.  FIRE AND EXPLOSION  FIRE AND EXPLOSION  N.A. (Does not burn.)  N.A. (Does not	SECTION III	- PHYSICAL PRO	OPERTIES -	
EVAPORATION RATE (BUTYL ACETATE=1)  N.A.  BOILING POINT (degrees F)  pH  SOCIDBILITY IN WATER:  Completely soluble.  Blue solution; odorless.  SECTION IV.  FIRE AND EXPLOSION  FIRE AND EXPLOSION  N.A. (Does not burn.)  N.A.  LOWER LIMIT N.A. UPPER LIMIT N.A.  PRE EXTINGUISHING MATERIALS:  WATER SPRAY CARBON DIOXIDE OTHER:  FOAM DRY CHEMICAL  SPECIAL FIREFIGHTING PROCEDURES:  Wear a NIOSH/MSHA approved, self-contained breathing apparatus and protective gear, if fully involved in a fire.  UNUSUAL FIRE AND EXPLOSION HAZARDS: None.				SRAVITY:
SECTION IV.  FIRE AND EXPLOSION  SECTION IV.  FIRE AND EXPLOSION  N.A. (Does not burn.)  N.	VAPOR DENSITY (AIR=1)	N.A.	SPECIFIC O	
FIRE AND EXPLOSION  N.A. (Does not burn.)  N.	VAPOR DENSITY (AIR=1) VAPOR PRESSURE (mm Hg)	N.A. N.A.	SPECIFIC O	OINT (degrees F)
N.A. (Does not burn.)	VAPOR DENSITY (AIR=1) VAPOR PRESSURE (mm Hg) EVAPORATION RATE (BUTYL ACETATE=1)	N.A. N.A. N.A.	SPECIFIC O MELTING P BOILING P	OINT (degrees F)
PLANMABLE LIMITS IN AIR, VOLUME %:  LOWER LIMIT N.A. UPPER LIMIT N.A.  Use media appropriate for the surrounding fire.  WATER SPRAY CARBON DIOXIDE OTHER:  POAM DRY CHEMICAL  SPECIAL FIREFIGHTING PROCEDURES:  Wear a NIOSH/MSHA approved, self-contained breathing apparatus and protective gear, if fully involved in a fire.  UNUSUAL FIRE AND EXPLOSION HAZARDS: None.	VAPOR DENSITY (AIR=1) VAPOR PRESSURE (mm Hg) EVAPORATION RATE (BUTYL ACETATE=1) EVAPORATION WATER: Co	N.A. N.A. N.A. ompletely soluble.	SPECIFIC O MELTING P BOILING P	OINT (degrees F)
PRE EXTINGUISHING MATERIALS:  Use media appropriate for the surrounding fire.  WATER SPRAY  CARBON DIOXIDE  DRY CHEMICAL  SPECIAL FIREFIGHTING PROCEDURES:  Wear a NIOSH/MSHA approved, self-contained breathing apparatus and protective gear, if fully involved in a fire.  UNESUAL FIRE AND EXPLOSION HAZARDS:  None.	VAPOR DENSITY (AIR=1) VAPOR PRESSURE (mm Hg) EVAPORATION RATE (BUTYL ACETATE=1) SOLUBBLITY IN WATER: Co	N.A. N.A. N.A. ompletely soluble. ue solution; odorless.	SPECIFIC O MELTING P BOILING P PH	OINT (degrees F)
Use media appropriate for the surrounding fire.  WATER SPRAY CARBON DIOXIDE OTHER:  POAM DRY CHEMICAL  SPECIAL FIREFIGHTING PROCEDURES: Wear a NIOSH/MSHA approved, self-contained breathing apparatus and protective gear, if fully involved in a fire.  UNUSUAL FIRE AND EXPLOSION HAZARDS: None.	VAPOR DENSITY (AIR=1) VAPOR PRESSURE (mm Hg) EVAPORATION RATE (BUTYL ACETATE=1) EVAPORATION WATER: Co	N.A. N.A. N.A. ompletely soluble. ue solution; odorless.  FIRE AND EXP	SPECIFIC OF MELTING PERSON PHERSON	OINT (degrees F)
WATER SPRAY CARBON DIOXIDE OTHER:  FOAM DRY CHEMICAL  SPECIAL FIREFIGHTING PROCEDURES: Wear a NIOSH/MSHA approved, self-contained breathing apparatus and protective gear, if fully involved in a fire.  UNUSUAL FIRE AND EXPLOSION HAZARDS: None.	VAPOR DENSITY (AIR=1)  VAPOR PRESSURE (mm Hg)  EVAPORATION RATE (BUTYL ACETATE=1)  SOLUBBLITY IN WATER: Co.  APPEARANCE AND ODOR: BIL  SECTION IV.  LASH POINT (OF) (METHOD USED):  AND GENTION TEMPERATURE, F.	N.A. N.A. N.A. ompletely soluble. se solution; odorless. FIRE AND EXP N.A. (Does not it	SPECIFIC OF MELTING PERSON PLOSION PLO	OINT (degrees F) OINT (degrees F)
FOAM DRY CHEMICAL  SPECIAL FIREFIGHTING PROCEDURES: Wear a NIOSH/MSHA approved, self-contained breathing apparatus and protective gear, if fully involved in a fire.  UNUSUAL FIRE AND EXPLOSION HAZARDS: None.	VAPOR DENSITY (AIR=1)  VAPOR PRESSURE (mm Hg)  EVAPORATION RATE (BUTYL ACETATE=1)  EVAPOR DENSITY (AIR=1)  EVAPOR DENSITY (AIR=1)  EVAPOR PRESSURE (mm Hg)  EV	N.A. N.A. N.A. pmpletely soluble. se solution; odorless. FIRE AND EXP N.A. (Does not I	SPECIFIC OF MELTING PERSON PROPERTY PRO	OINT (degrees F) OINT (degrees F)  UPPER LIMIT
Wear a NIOSH/MSHA approved, self-contained breathing apparatus and protective gear, if fully involved in a fire.  UNUSUAL FIRE AND EXPLOSION HAZARDS: None.	VAPOR DENSITY (AIR=1) VAPOR PRESSURE (mm Hg) EVAPORATION RATE (BUTYL ACETATE=1) SOLUBBLITY IN WATER: Co APPEARANCE AND ODOR: BIL SECTION IV. ELASH POINT (OF) (METHOD USED): ALTICICANTION TEMPERATURE, F. FLAMMABLE LIMITS IN AIR, VOLUME %:	N.A. N.A. N.A. pmpletely soluble. se solution; odorless. FIRE AND EXP N.A. (Does not I	SPECIFIC OF MELTING PERSON PROPERTY PRO	OINT (degrees F) OINT (degrees F)  UPPER LIMIT
apparatus and protective gear, if fully involved in a fire.  UNUSUAL FIRE AND EXPLOSION HAZARDS: None.	VAPOR DENSITY (AIR=1)  VAPOR PRESSURE (mm Hg)  EVAPORATION RATE (BUTYL ACETATE=1)  EVAPORATION RATE (BUTYL ACETATE=1)  EVAPORATION RATE (BUTYL ACETATE=1)  EVAPORATION RATE (BUTYL ACETATE=1)  EVAPORATION RATE:  CASH POINT (©F) (METHOD USED):  EVAPORATION TEMPERATURE, F.  EVAPOR	N.A. N.A. N.A. properties soluble. Description; odorless. FIRE AND EXP N.A. (Does not I N.A. LOWER Use media appr	SPECIFIC OF MELTING PERSON PROPERTY OF THE STATE OF THE SURFERNISH STATE OF TH	UPPER LIMIT
DEC-99-1333 II.30 LUCUL DECLUI SEEL-99-1330	VAPOR DENSITY (AIR=1) VAPOR PRESSURE (mm Hg) EVAPORATION RATE (BUTYL ACETATE=1) SOLUBBLITY IN WATER: Co APPEARANCE AND ODOR: BIL SECTION IV. ELASH POINT (OF) (METHOD USED): ALTOGORITION TEMPERATURE, F. FLAMMABLE LIMITS IN AIR, VOLUME %: PIRE EXTINGUISHING MATERIALS: WATER SPRAY	N.A. N.A. N.A. Discription of the solution; odorless.  FIRE AND EXP N.A. (Does not be	SPECIFIC OF MELTING PERSON PROPERTY OF THE STATE OF THE SURFERNISH STATE OF TH	UPPER LIMIT
DEC-08-1666 II:20 FROM TECHNIC INC TO TEIZEZSSUIZ P.02	VAPOR DENSITY (AIR=1)  VAPOR PRESSURE (mm Hg)  EVAPORATION RATE (BUTYL ACETATE=1)  SOLUBBLITY IN WATER: Co.  APPEARANCE AND ODOR: BIL  SECTION IV.  ELASH POINT (OF) (METHOD USED):  AUTOGOMITION TEMPERATURE, F.  FLAMMABLE LIMITS IN AIR, VOLUME %:  FIRE EXTINGUISHING MATERIALS:  WATER SPRAY  FOAM	N.A. N.A. N.A. Discription of the solution; odorless.  FIRE AND EXP N.A. (Does not be	SPECIFIC OF MELTING PERSONAL PROPERTY OF SPECIFIC OF MELTING PERSONAL PROPERTY OF SPECIFIC	UPPER LIMIT
	VAPOR DENSITY (AIR=1) VAPOR PRESSURE (mm Hg) EVAPORATION RATE (BUTYL ACETATE=1) SOLUBBLITY IN WATER: Co APPEARANCE AND ODOR: BILL SECTION IV. ELASH POINT (OF) (METHOD USED): ALTOGORITION TEMPERATURE, F. FLAMMABLE LIMITS IN AIR, VOLUME %: PIRE EXTINGUISHING MATERIALS: WATER SPRAY FOAM  SPECIAL FIREFIGHTING PROCEDURES:	N.A. N.A. N.A. N.A. Discription of the solution; odorless.  FIRE AND EXP N.A. (Does not be no	SPECIFIC OF MELTING PERSONAL PROPERTY OF SPECIFIC OF MELTING PERSONAL PROPERTY OF SPECIFIC	UPPER LIMIT

PAGE 2 OF	3	PRODUCT: COPPER FB PLATING SOLUTION
SECTION V	/	HEALTH HAZARD INFORMATION
SYMPTOMS	OF OVER-	EXPOSURE FOR EACH POTENTIAL ROUTE OF EXPOSURE.
INHALATION:		Initation and damage to mucous membrane and tissue of the upper respiratory tract.
		/ES: Severe damage to tissue with possible loss of sight and dermatitis.  Destructive on tissue.
ABSORBED TH	ROUGH SKIN:	Attacks tissue rapidly.
SWALLOWED:		Severe Injury to tissue with possible death.
HEALTH EFF		SKS FROM EXPOSURE. EXPLAIN IN LAY TERMS. ATTACH EXTRA PAGE IF MOR
ACUTE:	Local:	Irritant, Ingestion, Inhalation - High. May cause death or permanent injury after very short exposure to small quantities.
	Systemic:	Unknown.
CHRONIC:	Local:	Irritant, Inhalation - Moderate. May involve both irreversible and reversible changes; not severe enough to cause death or permanent injury.
	Systemic:	Unknown.
FIRST AID:	EMERGENC	CY PROCEDURES
EYE CONTACT		n eyes with water (under lids as well) for 15 minutes and contact physician immediately. In another 15 minutes if physician is not immediately available.
Flush immediate Call physician.		n immediately with copious amounts of water. Remove contaminated clothing. physician.
INHALED:		ove to fresh air. Give artificial respiration if necessary. Keep patient warm. physician.
SWALLOWED:	the	ain medical attention as soon as possible. Give large quantities of water to dilute acid. Induce vomiting by giving emetic (2 tablespoons of salt in a pint of water). additional water to wash out stomach.
SUSPECTED	CANCER A	GENT?X NO YES
SECTION V		REACTIVITY DATA
HAMUTY:		_ STABLE UNSTABLE
conditions :	TO AVOID:	Contact with sulfides, cyanides.
NCOMPATIBI	LITY (MATERIAL	LS TO AVOID): Sulfides, cyanides.
HAZARDOUS D	DECOMPOSITIO	ON PRODUCTS (INCLUDING COMBUSTION PRODUCTS): Sulfur dioxide and sulfur trioxide could be evolved in a hot fire.
HAZARDOUS F	POLYMERIZATION	ON: MAY OCCURX WILL NOT OCCUR
COMOTTONS	TO AVOID:	None.
	a.a staccs	DEC-08-7333 TT:25 EBOW LECHNIC INC 10 TRISES

PAGE 3 OF 3

PRODUCT: COPPER FB PLATING SOLUTION

SECTION VII \_\_\_\_\_ SPILL, LEAK AND DISPOSAL PROCEDURES=

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Neutralize with sodium bicarbonate. Sweep up and dispose of at a proper hazardous waste site. Flush spill area with water.

See Section VIII for employee protection.

WASTE DISPOSAL: SHOULD BE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL

ENVIRONMENTAL CONTROL REGULATIONS.

SECTION VIII

SPECIAL HANDLING INFORMATION -

VENTILATION:

Local exhaust.

RESPIRATORY PROTECTION:

Optional. (NIOSH/MSHA approved respirator in a major spill)

EYE PROTECTION:

Chemical goggles or face shield.

GLOVES:

Rubber gloves.

OTHER CLOTHING AND EQUIPMENT:

Optional. (Rubber apron)

WORK PRACTICES, HYGIENIC PRACTICES:

Wash thoroughly after handling.

OTHER HANDLING AND STORAGE REQUIREMENTS:

Store in a cool, dry place away from cyanides, sulfides.

(55-85 ° F)

HMESP



16126255012 P.04

DI

DEC-08-1363 17:28 EBOW LECHNIC INC