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DATE OF ISSUE
03/03/87SUPERSEDES
08/07/85

SECTION I - GENERAL INFORMATION

CHEMICAL NAME & SYNONYMS N/A	TRADE NAME & SYNONYMS TRILL	
CHEMICAL FAMILY SULFURIC ACID DRAIN OPENER	FORMULA X<--MIXTURE	
MANUFACTURERS NAME: NATIONAL CHEMSEARCH DIV. OF NCH CORP.		
ADDRESS (NUMBER, STREET, CITY, STATE & ZIP CODE) BOX 152170 IRVING, TEXAS 75015		
PREPARED BY: MARK S COHEN/T.S. CHEMIST	PRODUCT CODE NUMBER 5907	EMERGENCY TELEPHONE NUMBER 214-438-4144 EXT. 013

SECTION II- HAZARDOUS INGREDIENTS

THE HAZARDS PRESENTED BELOW ARE THOSE OF THE INDIVIDUAL COMPONENTS AS THE PRODUCT MIXTURE HAS NOT BEEN TESTED AS A WHOLE.

CHEMICAL NAME (INGREDIENTS)	HAZARD	TLV*	PEL*	CAS#
SULFURIC ACID	CORROSIVE	1 MG/M3 2.	N/A	7664-93-9

SECTION III - PHYSICAL DATA

BOILING PT. (FAHRENHEIT)	625.00	SPEC GRAVITY (H2O=1)	1.835
VAPOR PRESSURE (MM HG)	0.00	COLOR	DARK BROWN
VAPOR DENSITY (AIR=1)	0.00	ODOR	S03 ACIDIC
PH @ 100%	10% < 1	CLARITY	UNIFORMLY OPAQUE

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SECTION III - PHYSICAL DATA

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PERCENT VOLATILE BY VOLUME (%)	0.00	EVAPORATION RATE (BU AC = 1)	0.00
SOLUBILITY IN WATER	COMPLETE		
VISCOSITY	NON-VISCOUS		

SECTION IV - FIRE AND EXPLOSION HAZARD

FLASH POINT (METHOD USED) NON-FLAM	FLAMMABLE LIMITS	LEL N/A	UEL N/A
EXTINGUISHING MEDIA X<--FOAM	"ALCOHOL" X<--CO2	DRY X<--CHEMICAL	WATER X<--SPRAY
SPECIAL FIRE FIGHTING PROCEDURES USE NIOSH/MSHA APPROVED SELF-CONTAINED BREATHING APPARATUS WHERE THIS MATERIAL IS INVOLVED IN A FIRE.			

UNUSUAL FIRE & EXPLOSION HAZARDS
WHERE SULFURIC ACID IS INVOLVED IN A FIRE, DO NOT USE WATER SPRAY AS THIS CAN RESULT IN A POSSIBLE VIOLENT REACTION. SEE SECTION VII.

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE :

NOT ESTABLISHED FOR MIXTURE. SEE SECTION II.

EFFECTS OF OVEREXPOSURE

- ACUTE - (SHORT TERM EXPOSURE)
A DILUTE SOLUTION IS AN IRRITANT TO SKIN AND MUCOUS MEMBRANES DUE TO ITS ACIDITY AND MAY CAUSE IRREPARABLE CORNEAL DAMAGE AND BLINDNESS AS WELL AS SCARRING OF THE EYELIDS. A CONCENTRATED SOLUTION CAUSES BURNING AND CHARRING OF THE SKIN WHICH IS EVEN MORE RAPIDLY INJURIOUS TO MUCOUS MEMBRANES AND EXCEEDINGLY DANGEROUS TO THE EYES. INGESTION CAUSES SERIOUS BURNS OF THE MOUTH OR PERFORATION OF THE ESOPHAGUS OR STOMACH.

- CHRONIC - (LONG TERM EXPOSURE)
NONE OTHER THAN THOSE SECONDARY TO TISSUE DESTRUCTION.

PRIMARY ROUTE OF ENTRY: X<-- INHALATION X<-- INGESTION X<-- ABSORPTION

EMERGENCY & FIRST AID PROCEDURES

INHALATION
OBJECT IS TO SEEK MEDICAL ATTENTION IMMEDIATELY. GET PERSON OUT OF CONTAMINATED AREA TO FRESH AIR. IF BREATHING HAS STOPPED, ARTIFICIAL RESPIRATION SHOULD BE STARTED. OXYGEN MAY BE ADMINISTERED, IF READILY AVAILABLE. SEEK MEDICAL ATTENTION IMMEDIATELY.

EYE CONTACT:
IMMEDIATELY FLUSH EYES WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES HOLDING EYELIDS APART TO ENSURE FLUSHING OF THE ENTIRE EYE SURFACE. WASHING EYES WITHIN 1 MINUTE IS ESSENTIAL TO ACHIEVE MAXIMUM EFFECTIVENESS. SEEK MEDICAL ATTENTION IMMEDIATELY.

SKIN CONTACT:
IMMEDIATELY WASH CONTAMINATED SKIN WITH PLENTY OF WATER. THIS MAY BE FOLLOWED WITH A RINSE OF WATER AND BAKING SODA IF AVAILABLE. REMOVE CONTAMINATED CLOTHING AND FOOTWEAR AND WASH CLOTHING BEFORE REUSE. DISCARD FOOTWEAR WHICH CANNOT BE DECONTAMINATED. SEEK MEDICAL ATTENTION IMMEDIATELY.

INGESTION:
IF SWALLOWED, DO NOT INDUCE VOMITING. GIVE LARGE QUANTITIES OF WATER. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. SEEK MEDICAL ATTENTION IMMEDIATELY.

NOTES TO PHYSICIAN :

N/A

SECTION VI - TOXICITY INFORMATION

SULFURIC ACID
EYE - RABBIT: 1.300 MG SEV 4.
UNK - MAN LD50: 135 MG/KG 4.
ORAL - RAT LD50: 2140 MG/KG 4.
INHALATION - GUINEA PIG LC50: 8 MG/M3 4.

SECTION VII - REACTIVITY DATA

STABILITY	X--STABLE	--UNSTABLE	CONDITIONS TO AVOID
	N/A		

INCOMPATIBILITY (MATERIALS TO AVOID)
WATER, SOLVENTS, STRONG OXIDIZERS, COMBUSTIBLE MATERIALS, ALKALIS, METALS, CHLORATES.

HAZARDOUS DECOMPOSITION PRODUCTS
HYDROGEN EVOLUTION IN CLOSED METAL CONTAINERS. WHEN HEATED TO DECOMPOSITION, CAN EMIT TOXIC FUMES OF NITROGEN OXIDES.

HAZARDOUS	WILL NOT OCCUR	MAY OCCUR	CONDITIONS TO AVOID
POLYMERIZATION	N/A		

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SECTION VIII - SPILL OR LEAK PROCEDURES PAGE : 04

STEPS TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
NIOSH/MSHA APPROVED SELF-CONTAINED BREATHING APPARATUS. FOLLOW OSHA REGULATIONS FOR RESPIRATOR USE (SEE 29 CFR 1910.34). GAS-TIGHT GOGGLES, COVERALLS AND RUBBER BOOTS, GLOVES AND APRON. ADD NON-COMBUSTIBLE DRY ABSORBANT SHOVEL (SWEEP UP). PLACE IN AN APPROVED DOT CONTAINER AND SEAL. WASH RESIDUE WITH LARGE AMOUNTS OF WATER. WASH CONTAMINATED CLOTHING.

WASTE DISPOSAL METHOD
DISPOSE OF IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS CONCERNING HEALTH AND POLLUTION, VIA APPROVED CHEMICAL WASTE DISPOSAL METHOD. IF REGULATIONS PERMIT, DISPOSE OF CLEAN UP DEBRIS, CONTAMINATED MATERIAL AND RESIDUES.

NEUTRALIZING AGENT
ADD SLOWLY TO A SOLUTION OF SODA ASH AND SLAKED LIME WITH STIRRING; FLUSH TO DRAIN WITH LARGE VOLUMES OF WATER.

SECTION IX - SPECIAL PROTECTION INFORMATION

REQUIRED VENTILATION
GOOD INDUSTRIAL HYGIENE PRACTICE DICTATES THAT THE WORK AREA SHOULD BE ISOLATED AND CONTAINED AND PROVIDED WITH ADEQUATE LOCAL EXHAUST VENTILATION OR OTHER CONTROLS TO MAINTAIN THE AIR CONCENTRATION OF SULFURIC ACID BELOW 1 MG/M3 AS REQUIRED BY OSHA.

RESPIRATORY PROTECTION
NIOSH HAS CONCLUDED THAT ADHERENCE TO THE PRESENT FEDERAL STANDARD OF 1 MG/M3 OF AIR, IN CONJUNCTION WITH A STRONG PROGRAM OF WORK PRACTICES, WILL PROTECT THE WORKER FROM SULFURIC ACID EXPOSURE FOR UP TO 10 HOUR WORKDAY, 40 HOUR WORK WEEK OVER A WORKING LIFETIME. THE IDLH LEVEL IS 80 MG/M3. RECOMMENDED RESPIRATOR SELECTION. FOR EXPOSURES:
≤ 50MG/M3 - GMAGHIEP/HIEPF/SAF/SCBAF
≤ 100MG/M3 - SAF, PD, PP, CF
ESCAPE: GMAGHIEP/SCBA

PROTECTIVE GLOVES
RUBBER, SYNTHETIC ELASTOMERS, PVC, OR OTHER PLASTIC SHOULD BE WORN.

EYE PROTECTION
CHEMICAL SPLASH GOGGLES AND FACE SHIELD SHOULD BE WORN DEPENDING ON THE EXTENT OF EXPOSURE LIKELY.

OTHER PROTECTION
COVERALLS, RUBBER APRON AND SAFETY BOOTS.

SECTION X - STORAGE AND HANDLING INFORMATION

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SECTION X - STORAGE AND HANDLING INFORMATION PAGE : 05

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STORAGE TEMPERATURE
120 F <--MAX 32 F <--MIN X INDOOR HEATED REFRIGERATED OUTDOOR

PRECAUTIONS TO BE TAKEN IN HANDLING & STORING
STORE IN ORIGINAL CONTAINER. DO NOT GET IN EYES,
ON SKIN OR ON CLOTHING. DO NOT TAKE INTERNALLY.
AVOID BREATHING MIST OR FUMES. PROTECT AGAINST
PHYSICAL DAMAGE AND WATER. SEPARATE CARBIDES,
CHLORATES, FULMINATES, NITRATES, PICRATES,
POWDERED METALS AND COMBUSTIBLE MATERIALS.

OTHER PRECAUTIONS
STORE IN A COOL, DRY PLACE. FOLLOW LABEL
DIRECTIONS. KEEP OUT OF REACH OF CHILDREN.
NOTE: WATER ON SULFURIC ACID WILL CAUSE
SPATTERING, FUMING AND EVOLUTION OF HEAT.

SECTION XI - TRANSPORTATION * (FOR FUTURE USE)

APPLICABLE REGULATIONS
<--49 CFR <--IMCO <--TARIFF 6 D <--IATA <--MILITARY AIR (AFR 71-4)

SHIPPING NAME

HAZARD CLASS ID NUMBER REPORT QTY

LABELS LIMITED QTY

UNIT CONTAINER

DOT SPS CONTAINER NET EXPLOSIVE WT.

AEROSOL PROPELLANT(S)

SECTION XII - REFERENCES

1. NIOSH POCKET GUIDE TO CHEMICAL HAZARDS, 1978.
2. HANDBOOK OF TOXIC AND HAZARDOUS CHEMICALS AND CARCINOGENS,
2ND EDITION, MARSHALL SITTIG, 1985.
3. NIOSH REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES, 1982.
4. DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS, 6TH EDITION,
N. IRVING SAX.

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SECTION XII - REFERENCES

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5. VENDOR'S MATERIAL SAFETY DATA SHEETS.

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