## KANTHAL CORPORATION -- KANTHAL A-1 HEATING ELEMENT WIRE -- 9650-00N081123

======= Product Identification =========== Product ID: KANTHAL A-1 HEATING ELEMENT WIRE MSDS Date: 01/08/1986 FSC:9650 NIIN:00N081123 MSDS Number: CFZRL === Responsible Party === Company Name: KANTHAL CORPORATION Address:119 WOOSTER ST City:BETHEL State:CT ZIP:06801 Country: US Info Phone Num: 203-744-1440 Emergency Phone Num: 203-744-1440 Preparer's Name: ROBERT WATSON CAGE:18771 === Contractor Identification === Company Name: KANTHAL CORP Address:119 WOOSTER ST Box:City:BETHEL State:CT ZIP:06801 Country: US Phone: 203-744-1440 CAGE: 18771 ======= Composition/Information on Ingredients ======== Ingred Name:ALUMINUM (SARA 313) CAS:7429-90-5 RTECS #:BD0330000 Fraction by Wt: 5.5% OSHA PEL:15 MG/M3 DUST ACGIH TLV:10 MG/M3 DUST Ingred Name:CHROMIUM (SARA 313) (CERCLA) CAS:7440-47-3 RTECS #:GB4200000 Fraction by Wt: 22% OSHA PEL:1 MG/M3 ACGIH TLV: 0.5 MG/M3 EPA Rpt Qty:1 LB DOT Rpt Qty:1 LB Ingred Name:IRON (III) OXIDE; (IRON) CAS:1309-37-1 RTECS #:NO7400000 Fraction by Wt: 72.5% OSHA PEL:10 MG/M3 (FE) ACGIH TLV:5 MG/M3 FUME (FE) Ingred Name: SUPDAT: GENERALLY DIFFERENT FROM INGS LISTED AND MAY INCL OXIDES OF METALS, CHROMATES, FLUORIDES, AND COMPLEX (ING 5) RTECS #:9999992Z

Ingred Name:ING 4: METALLICS. GASES MAY INCL CARBON MONOXIDE, OZONE,
 AND OXIDES OF NITROGEN. CHLORINATED SOLVS MAY BE (ING 6)
RTECS #:9999999ZZ

Ingred Name:ING 5: DECOMPOSED BY ARC INTO TOXIC GASES SUCH AS PHOSGENE.
RTECS #:9999999ZZ

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

Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:SUMMARY: LISTED MATLS AS SUPPLIED
GENERALLY PRESENT NO HLTH HAZS. WHENEVER MATL IS WELDED PROPER VENT
SHOULD BE PROVIDED TO AVOID INHAL OF WELD FUMES. IT IS ALSO RECOM

SHOULD BE PROVIDED TO AVOID INHAL OF WELD FUMES. IT IS ALSO RECOM THAT A PARTICULATE FILTER MASK B E USED WHENEVER GRINDING/WORKING MATL IN ANY WAY THAT PRODUCES DUST/POWDER. ACUTE: METALLIC TASTE; (EFTS OF OVEREXPOS)

Explanation of Carcinogenicity:NOT RELEVANT

LD50 LC50 Mixture: NONE SPECIFIED BY MANUFACTURER.

Effects of Overexposure: HLTH HAZS: TIGHTNESS OF CHEST; FEVER; IRRITATION OF EYES, NOSE, THROAT, AND/OR SKIN; LOSS OF CONSCIOUSNESS/DEATH DUE TO WELDING GASES OR LACK OF OXYGEN. CHRONIC: ADVERSE EFTS MAY RSLT FROM LONG TIME E XPOS TO WELD FUME, GASES/DUSTS. EFTS MAY INCL SKIN SENSIT, NEUROLOGICAL DMG, & RESP DISEASE SUCH AS BRONCHIAL (SUPDAT)

Medical Cond Aggravated by Exposure: AGGRAVATION OF PREEXISTING RESPIRATORY OR ALLERGIC CONDITIONS MAY OCCUR IN SOME WORKERS.

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

First Aid:INHAL: REMOVE FROM EXPOSURE AND OBTAIN PROMPT MEDICAL ATTENTION. IF VICTIM IS UNCON, ADMIN OXYGEN. IF NOT BRTHG RESUSCITATE IMMEDIATELY. INGEST: CALL MD IMMEDIATELY. EYES: IMMEDIATELY FLUSH W/P OTABLE WATER FOR A MINIMUM OF 15 MINUTES, SEEK ASSISTANCE FROM MD . SKIN: FLUSH W/COPIOUS AMOUNTS OF WATER. CALL MD .

Flash Point: NONFLAMMABLE

Extinguishing Media:DRY CHEMICAL--USE DRY POWDER FOR METAL FIRES. GENTLY SPOON MEDIA ONTO FIRE. DO NOT DISTURB PARTICLES.

Fire Fighting Procedures: USE NIOSH APPROVED SCBA AND FULL PROTECTIVE EQUIPMENT .

Unusual Fire/Explosion Hazard: DUST HAZARD EXISTS UNDER FAVORING CONDITIONS OF SMALL PARTICLE SIZE. DISPERSION IN AIR AND STRONG IGNITION SOURCE MAY RESULT IN AN EXPLOSION. MATERIALS (SUPDAT)

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

Spill Release Procedures: VACUUM CLEAN DUST (IF ANY) WITH EQUIPMENT FITTED WITH HEPA FILTER. IF SWEEPING IS NECESSARY USE A DUST SUPPRESSANT. STORE MATERIAL IN A SUITABLE CONTAINER.

Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER.

Handling and Storage Precautions: SPPECIAL HANDLING/STORAGE: NONE. SPECIAL WORKPLACE ENGINEERING CONTROLS: ADEQUATE VENTILATION WHEN WELDING OR GRINDING.

Other Precautions: ALWAYS MAINTAIN EXPOSURES BELOW THE PEL/TLV. USE INDUSTRIAL MONITORING TO ENSURE THAT YOUR USE OF THIS MATERIAL DOES NOT CREATE CONDITIONS WHICH EXCEED PEL/TLV.

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

Respiratory Protection: RESP PROT IS NEC WHEN PERMISSIBLE EXPOSURE LIMITS MAY BE EXCEEDED (TYPICALLY MAY BE EXCEEDED DURING WELD/CUT/GRINDING). USE AIR-SUPPLIED RESP IN CONFINED SPACES. USE ONLY NIOSH APPROVED RESPIRATORY PR OTECTION EQUIPMENT.

 $\label{local_exh} \begin{tabular}{ll} Ventilation: USE VENT/LOCAL EXHST WHEN CUT/GRIND/WELD. MAINTAIN EXPOS < LIMS IN INGS. CONFINED SPACES REQ SPEC ATTN TO PROPER VENT. \\ \end{tabular}$ 

Protective Gloves: IMPERVIOUS GLOVES .

Eye Protection: ANSI APPRVD CHEM WORKERS GOGGLES .

Other Protective Equipment: ANSI APPROVED EYE WASH & DELUGE SHOWER . FLAME RETARDANT CLOTHING. SELECT LENS SHADE FROM AWS PUBLICATION F2.2.

Work Hygienic Practices: DO NOT EXPOSE SKIN.

Supplemental Safety and Health

APPEAR/ODOR: INTERMEDIATE FORM. FIRE/EXPLO HAZS: AS SUPPLIED ARE NONFLAM; HOWEVER WELD ARCS & SPRKS CAN IGNITE FLAM LIQS & VAPS & COMBUST SOLIDS. EFTS OF OVEREXPOS: ASTHMA, LUNG FIBROSIS, OR PNEUMOCON IOSIS. HAZ DECOMP PRODS: METAL BEING WELDED, PROCESS, PROCEDURES & ELECTRODES USED. CONSTITUENTS OF FUME ARE (ING 4)

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

Appearance and Odor:ALL PRODS ARE SOLID METALS SHAPED AS WIRE, ROD, TUBE, STRIP/SOME (SUPDAT)

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

Stability Indicator/Materials to Avoid:YES NONE SPECIFIED BY MANUFACTURER.

Stability Condition to Avoid: NONE SPECIFIED BY MANUFACTURER.

Hazardous Decomposition Products: FUMES & GASES FROM WELDING & HIGH TEMP CUTTING CANNOT BE CLASSIFIED SIMPLY. COMPOSITION & QTY OF BOTH DEPEND ON (SUPDAT)

======= Disposal Considerations ===========

Waste Disposal Methods: DISPOSE OF IN ACCORDANCE WITH EPA OR LOCAL REGULATIONS.

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