Product ID: ARCAIR AIR CARBON ARC ELECTRODES, 22 MSDS Date:10/31/1990 FSC:3439 NIIN:01-268-3403 Kit Part:Y MSDS Number: CFQYC === Responsible Party === Company Name: TWECO PROD INC Address:4200 WEST HARRY ST Box:12250 **City:WICHITA** State:KS ZIP:67277 Country:US Info Phone Num:316-942-1421 Em ergency Phone Num:316-648-5129 Preparer's Name: DENNIS WILSON CAGE:NO334 === Contractor Identification === Company Name: TWECO PROD INC Address:4200 WEST HARRY ST Box:12250 City:WICHITA State:KS ZIP:67277 Country:US Phone:316-942-1421 CAGE:NO334 Company Name: TWECO PRODUCTS, INC. Address:4200 WEST HARRY ST. Box:12250 City:WICHITA State:KS ZIP:67277 Country:US Phone:316-946-8308;316-942-1421 CAGE:89381

Ingred Name:CARBON CAS:7440 -44-0 RTECS #:FF5250100 Fraction by Wt: 20-90% OSHA PEL:15 MG/M3 TDUST ACGIH TLV:2 MG/M3 TDUST

Ingred Name:GRAPHITE; (GRAPHITE, SYNTHETIC) CAS:7782-42-5 RTECS #:MU9659600 Fraction by Wt: 20-90% OSHA PEL:15 MG/M3 TDUST ACGIH TLV:2 MG/M3 TDUST

Ingred Name:COPPER (SARA 313) (CERCLA) CAS:7440-50-8 RTECS #:GL5325000 Fraction by Wt: 10-30% OSHA PEL:0.1MG/M3 FUME;1 DUST ACGIH TLV:0.2 MG/M3 FUME EPA Rpt Qty:5000 LBS DOT Rpt Qty:5000 LBS

Ingred Name:CARBON BLACK CAS:1333-86-4 RTECS #:FF5800000 OSHA PE L:3.5 MG/M3 ACGIH TLV:3.5 MG/M3

LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER. Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES Reports of Carcinogenicity:NTP:NO IARC:YES OSHA:NO Health Hazards Acute and Chronic:FUME: BRONCHITIS, LUNG DEPOSITS AND TISSUE DAMAGE WHICH MAY BE IRREVERSIBLE. EXPOSURE TO ULTRA-VIOLET ARC RAYS CAN RESULT IN KERATOCONJUNCTIVITIS, CAUSING INFLAMMATION, BLURRED VISION, HEADA CHE-"SUNBU RN". Explanation of Carcinogenicity:CARBON BLACK: IARC MONOGRAPHS, VOL 65,

PG 149, 1996: GROUP 2B ANIMAL LUNG. Effects of Overexposure:BREATHING DIFFICULTY, HEADACHE, NAUSEA, DRYNESS OR IRRITATION OF NOSE, THROAT, EYES. BURNING SENSATION OF SKIN OR

EYES. UNCONSCIOUSNESS.

Medical Cond Aggravated by Exposure: RESPIRATORY PROBLEMS, ERYTHMAS.

First Aid:INHALATION: REMOVE TO FRESH AIR. IF BREATHING IMPAIRED,

ASSISTED RESPIRATION MAY BE REQUIRED. INGEST: CALL MD IMMEDIATELY . EYES: IMMEDIATELY FLUSH W/POTABLE WATER FOR A MINIMUM OF 15 MINUTES, S EEK ASSISTANCE FROM MD . SKIN: TREAT U.V. EXPOSURE SIMILAR TO SEVERE SUNBURN, SEEK MEDICAL ATTENTION.

Extinguishing Media:MEDIA SUITABLE FOR SURROUNDING FIRE . Fire Fighting Procedures:USE NIOSH APPROVED SCBA AND FULL PROTECTIVE EQUIPMENT . Unusual Fire/Explosion Hazard :NONE.

Spill Release Procedures:SWEEP OR PICK UP. BE ALERT TO "HOT ENDS". Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

Handling and Storage Precautions: STORE IN DRY AREA. ELECTRODES EXPOSED TO MOISTURE MAY EXPLODE VIOLENTLY IF USED. DRY MOIST RODS BY BAKING

AT 300F FOR TEN HOURS.

Other Precautions: READ & UNDERSTAND "AMERICAN NATIONAL STANDARD Z 49.1";

SUBPART Q OF OSHA 29 CFR 1910.252; "SAFETY IN WELDING & CUTTING" BY AMERICAN WELDING SOCIETY. CAUTION: USE IN CONFINED AREAS CAN RSLT IN CARBON MO NOXIDE POISONING/DEATH. NIOSH (SUPDAT)

Respiratory Protection:NIOSH APPROVED SUPPLIED OR FUME RESPIRATOR SHOULD BE USED IF VENTILATION IS INSUFFICIENT.

Ventilation: ALL AS REQUIRED TO REDUCE FUMES GENERATED BY EACH SPECIFIC APPLICATION BELOW ACGIH TLV.

Prot

ective Gloves:WELDERS GLOVES.

Eye Protection: FACESHIELD OR WELDERS HELMET (SUPDAT)

Other Protective Equipment: FOOTWEAR SUITABLE FOR METAL WORKING. DARK,

SUBSTANTIAL-APRONS, ETC. ANSI APPROVED EYE WASH & DELUGE SHOWER .

Work Hygienic Practices: OPERATOR TRAINED TO AVOID ELECTRICAL SHOCK AND U.V. RAY EXPOSURE.

Supplemental Safety and Health

OTHER PRECAUTIONS: APPROVVED AIR SUPPLIED RESPIRATOR IS RECOMMENDED WHEN USED INDOORS. EYE PROTECTION: WITH #12 OR DARKER LENS.

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

Appearance and Odor:NO NOTABLE ODOR, COPPER COATED BLACK ROD.

Stability Indicator/Materials to Avoid:YES NONE KNOWN. Stability Condition to Avoid:NOT APPLICABLE. Hazardous Decomposition Products:CARBON MONOXIDE, CARBON DIOXIDE, TRACES OF COPPER FUME (OZONE, NITROGEN OXIDE FROM ELECTRIC ARC AND UV RAYS).

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Waste Disposal Methods:SOLID LANDFILL IF LOCAL REGULATIONS ALLOW. DISPOSAL MUST BE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

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