

Material Safety Data Sheet  
\*89-250-946\*

SECTION 1 - PRODUCT IDENTIFICATION AND USE

PRODUCT IDENTIFIER: ARCAIR AIR CARBON ARC Electrodes, TWEKO HEAT SHRINK CARBON  
CATALOG NUMBERS: 21-xx3-003,21-xx3-004, & 20002010  
PRODUCT USE: Arc metal removal, metal shrinking (Automotive)  
MANUFACTURERS NAME: TWEKO Products, Inc. EMERGENCY PHONE #: (316) 946-8308  
STREET ADDRESS: 4200 West Harry St. P.O. Box 12250  
CITY: Wichita STATE: Kansas ZIP CODE: 67277  
PREPARED BY: Dennis Wilson PHONE NUMBER: (316) 946-8308  
DATE PREPARED: October 30, 1990 DATE REVISED: January 4, 2000

SECTION 2 - HAZARDOUS INGREDIENTS

HAZARDOUS INGREDIENTS	%/RANGE	CAS NUMBER	OSHA PEL	ACGIH TLV
Graphite, Synthetic	0-100*	7440-44-0	5mg/M3	3.5mg/M3
Graphite, Natural	0-100*	7782-42-5	15 mppcf	2.5mg/M3

NOTE: Information for Welding Fume 5mg/M3  
HEALTH AND PHYSICAL HAZARDS ASSOCIATED WITH AIR CARBON ARC ELECTRODES ARE  
ATTRIBUTABLE TO THE FUMES GENERATED WHEN THE ELECTRODES ARE USED AND  
CONSUMED.  
Quantative analysis detected no trace of cadmium or mercury.

SECTION 313. SUPPLIER INFORMATION

THIS PRODUCT DOES  DOES NOT  CONTAIN TOXIC CHEMICALS SUBJECT TO THE  
REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND  
COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND OF 40 CFR 372.

CAS NUMBER	CHEMICAL NAME	%
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THIS INFORMATION MUST BE INCLUDED IN ALL MSDSs THAT ARE COPIED AND  
DISTRIBUTED FOR THIS PRODUCT.

\*BATCH PERCENTAGES VARY GREATLY DEPENDING UPON AVAILABILITY.

SECTION 3 - PHYSICAL DATA

PHYSICAL STATE: Solid ODOR AND APPEARANCE: No notable odor, black rod  
VAPOR PRESSURE(mm Hg): N.App. VAPOR DENSITY: N.App. EVAPORATION RATE: N.App.  
BOILING POINT(F/C): N.App. FREEZING POINT(F/C): N.App. pH: N.App.  
SPECIFIC GRAVITY: N.App. SOLUBILITY: Not Soluble

SECTION 4 - FIRE AND EXPLOSION DATA

FLAMMABILITY: Yes  No  IF YES, MEANS OF EXTINCTION: Not Flammable  
FLASHPOINT(F/C) AND METHOD: N.App. FLAMMABLE LIMIT: N.App.  
LEL: N.App. UEL: N.App. UNUSUAL FIRE AND EXPLOSION HAZARDS: None

N.App.: NON APPLICABLE; N.Av.: NOT AVAILABLE; N.Est.: NOT ESTABLISHED  
N.F.P.A. RATING SYSTEM: 0 - INSIGNIFICANT; 1 - SLIGHT; 2 - MODERATE;  
3 - HIGH; 4 - EXTREME  
Health = 1 Flammibility = 0 Reactivity = 0 Special = none  
WHMIS CLASSIFICATION: CLASS "D" DIVISION 2 SUB-DIVISION "G"  
DOT HAZARD CLASS: NOT REQUIRED

## SECTION 5 - REACTIVITY DATA

CHEMICAL STABILITY: Yes  No  IF NO, CONDITIONS TO AVOID: N.App.  
INCOMPATIBILITY WITH OTHER SUBSTANCES: Yes  No  IF YES, WHICH ONES?  
None known HAZARDOUS POLYMERIZATION: Will Occur  Will Not Occur   
CONDITIONS TO AVOID: N.App. HAZARDOUS DECOMPOSITION PRODUCTS: Carbon  
monoxide, carbon dioxide, (ozone, nitrogen oxide from the electric arc and  
U.V. rays)

## SECTION 6 - HEALTH HAZARD DATA

ROUTE OF ENTRY: SKIN CONTACT  SKIN ABSORPTION  EYE CONTACT   
INHALATION  INGESTION  U.V. EXPOSURE

EFFECTS OF ACUTE/CHRONIC EXPOSURE TO PRODUCT: 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, headache - "sunburn." TOXICITY: Intravenous mouse; LD50:  
440 Mg/Kg REPRODUCTION: Subcutaneous, rat; TDLo: 167Mg/Kg (8D preg)  
CARCINOGENICITY: Not Currently Listed SIGNS AND SYMPTOMS OF EXPOSURE: Breath-  
ing difficulty, headache, nausea, dryness or irritation of nose, throat, eyes.  
Burning sensation of skin or eyes. Unconsciousness.  
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Respiratory problems,  
eurythmas. EMERGENCY AND FIRST AID PROCEDURES: Remove to fresh air. If  
breathing impaired, assisted respiration may be required. Treat U.V. exposure  
similar to severe sunburn, seek medical attention!

## SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE

LEAK AND SPILL PROCEDURE: Sweep or pick up. Be alert to "hot ends." WASTE  
DISPOSAL METHOD: Solid landfill if local regulations allow. PRECAUTIONS TO  
BE TAKEN IN HANDLING AND STORING: Store in dry area. Electrodes exposed to  
moisture may explode violently if used. Dry moist rods by baking at 300  
degrees Fahrenheit for ten hours. OTHER PRECAUTIONS: Read and understand  
"American National Standard Z49.1"; subpart Q of OSHA 29 CFR 1910.252;  
"Safety in Welding and Cutting" by the American Welding Society. CAUTION:  
Use in confined areas can result in carbon monoxide poisoning/death. Air  
supplied respirator is recommended when product is used indoors.

## SECTION 8 - CONTROL MEASURES

RESPIRATORY PROTECTION: Air supplied or fume respirator should be used if  
ventilation is insufficient GLOVES: Welders RESPIRATOR: See Above  
EYE: Face shield or welders helmet with #12 or darker lens FOOTWEAR:  
Suitable for metal working CLOTHING: Dark, Substantial, aprons, etc.  
OTHER: See Z49.1 - "Safety in Welding and Cutting"  
VENTILATION: Local mechanical exhaust as required to reduce fumes generated  
by each specific application below ACGIH TLV. OTHER: Air sampling to  
determine corrective measures WORK/HYGIENIC PRACTICES: Operator trained to  
avoid electrical shock and U.V. ray exposure.

REFERENCES:

"Chemical Guide To OSHA Hazard Communication Standard" First Edition  
"Handbook Of Toxic And Hazardous Chemicals and Carcinogens" Second Edition  
"Registry Of Toxic Effects Of Chemical Substances"  
"NIOSH Pocket Guide to CHEMICAL HAZARDS" June 1994

THIS DATA IS OFFERED IN GOOD FAITH AS TYPICAL VALUES. THIS IS NEITHER AN EXPRESSED NOR IMPLIED PRODUCT SPECIFICATION. RECOMMENDED HANDLING PROCEDURES AND HYGIENE ARE BELIEVED TO BE ACCURATE, HOWEVER, THESE RECOMMENDATIONS SHOULD BE REVIEWED IN THE SPECIFIC CONTEXT OF INTENDED USE AND DETERMINED APPROPRIATE BY THE USER.