

Material Safety Data Sheet  
89-250-819/B

SECTION 1 - PRODUCT IDENTIFICATION AND USE

PRODUCT IDENTIFIER: ARCAIR ARCWATER ELECTRODE  
CATALOG NUMBERS: 42-059-006  
PRODUCT USE: Underwater Arc Metal Removal  
MANUFACTURERS NAME: TWECO 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: July 1989 DATE REVISED: January 4, 2000

SECTION 2 - HAZARDOUS INGREDIENTS

HAZARDOUS INGREDIENTS	%/RANGE	CAS NUMBER	OSHA PEL	ACGIH TLV
Copper (coating)	Appr. 15	7440-50-8	0.2mg/M3 Fume	0.2mg/M3 Fume
Synthetic Graphite	Appr. 84	7440-44-0	3.5mg/M3	3.5mg/M3
Plasticized Vinyl	Appr. 1	Compound	N.AP.	N.AP.

When placed into underwater service, an electric arc is formed as in welding, generating intense heat, ultra-violet (UV) rays, fumes and gases as in conventional welding. When used as intended for underwater welding, exposure to UV rays and electrical shock potential are the most likely sources of risk to health. When not in service, the electrodes pose no significant hazard.

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	%
7440-50-8	Copper	Approximately 15

SECTION 3 - PHYSICAL DATA

PHYSICAL STATE: Solid ODOR AND APPEARANCE: White plastic over copper-coated carbon rod. No noticeable odor. VAPOR PRESSURE: N.App.  
VAPOR DENSITY (air = 1): N.App. EVAPORATION RATE: BOILING POINT (FREEZING POINT)(mm Hg) N.App. [degree]F/C [degree]F/C): N.App. pH: N.App.  
SPECIFIC GRAVITY: N.App. SOLUBILITY: Insoluble

SECTION 4 - FIRE AND EXPLOSION DATA

FLAMMABILITY: Yes  No  IF YES, MEANS OF EXTINCTION: Does not readily burn FLASHPOINT ([degree] FLAMMABLE LIMIT F/C) AND METHOD: 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"

## SECTION 5 - REACTIVITY DATA

CHEMICAL STABILITY: Yes [X] No [ ] IF NO, CONDITIONS TO AVOID: N.AP.  
INCOMPATIBILITY WITH OTHER SUBSTANCES: Yes [ ] No [X] IF YES, WHICH ONES? None  
known HAZARDOUS POLYMERIZATION: Will Occur [ ] Will Not Occur [X] CONDITIONS  
TO AVOID: N.AP. HAZARDOUS DECOMPOSITION PRODUCTS: Small amounts of copper  
fume are generated during cutting operations, but pose no problem for the  
diver/welder.

## SECTION 6 - HEALTH HAZARD DATA

ROUTE OF ENTRY: SKIN CONTACT [ ] SKIN ABSORPTION [ ] EYE CONTACT [ ]  
INHALATION [ ] INGESTION [ ] U.V. EXPOSURE [X] EFFECTS OF ACUTE/CHRONIC  
EXPOSURE TO PRODUCT: Exposure to UV radiation from the cutting arc can result  
in keratoconjunctivitis, also known as welders flash. TOXICITY: CARBON: Intra-  
venous mouse; LD50: 440 Mg/Kg, COPPER(fume): Human, Oral LDLo: 120ug/Kg  
REPRODUCTION: CARBON - Subcutaneous rat; TDLo: 167Mg/Kg (8D preg);  
COPPER: - Oral , Rat; TDLo: 1520ug/Kg (22w pre) TDLo: 1210ug/Kg (35w pre)  
CARCINOGENICITY: Not Listed SIGNS AND SYMPTOMS OF EXPOSURE: Inflammation,  
blurred vision and headache MEDICAL CONDITIONS GENERALLY AGGRAVATED BY  
EXPOSURE: None known EMERGENCY AND FIRST AID PROCEDURES: Seek medical  
attention, preferably an eye specialist.

## SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE

LEAK AND SPILL PROCEDURE: Pick up spent ends when cool  
WASTE DISPOSAL METHOD: Solid landfill if local regulations allow.  
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Store in dry area  
OTHER PRECAUTIONS: CUTTING WARNINGS: CAUTION! ELECTRIC SHOCK CAN KILL.  
ARC RAYS CAN INJURE EYES. Train the operator not to touch electrical parts.  
Wear an underwater suit.

## SECTION 8 - CONTROL MEASURES

RESPIRATORY PROTECTION (SPECIFY TYPE): As applicable for underwater operation  
GLOVES (SPECIFY): Butyl Rubber RESPIRATOR (SPECIFY): As required for  
underwater operations EYE (SPECIFY): Filter lens for U.V. protection, #12 or  
darker FOOTWEAR (SPECIFY): N.AP CLOTHING (SPECIFY) Suit constructed of  
rubber to minimize likelihood for shock OTHER(SPECIFY): N.AP. VENTILATION: As  
required for underwater operations MECHANICAL: As required for underwater  
operations OTHER: N.App WORK/HYGIENIC PRACTICES: Top water personnel should  
avoid surfacing fumes

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.