

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 #: (940) 566-2000
STREET ADDRESS: 2800 Airport Road
CITY: Denton STATE: Texas ZIP CODE: 76207
PREPARED BY: Terry Fulks PHONE NUMBER: (940) 566-2000
DATE PREPARED: July 1989 DATE REVISED: January 1, 2010
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 [X] 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 [X] 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.ESL.: NOT ESTABLISHED
N.F.P.A. RATING SYSTEM: 0 - INSIGNIFICANT; 1 - SLIGHT; 2 - MODERATE;
3 - HIGH; 4 - EXTREME
Health = 1 Flammability = 0 Reactivity = 0 Special = none
WHMIS CLASSIFICATION: CLASS "D" DIVISION 2 SUB-DIVISION "G"

SECTION 5 - REACTIVITY DATA

CHEMICAL STABILITY: Yes ☒ No ☐ IF NO, CONDITIONS TO AVOID: N.AP.
INCOMPATIBILITY WITH OTHER SUBSTANCES: Yes ☐ No ☒ IF YES, WHICH ONES? None known
HAZARDOUS POLYMERIZATION: Will Occur ☐ Will Not Occur ☒ 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 ☒ 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.