

Material Safety Data Sheet
89-250-853/A

SECTION 1 - PRODUCT IDENTIFICATION AND USE

PRODUCT IDENTIFIER: ARCAIR SEA-WELD ELECTRODE
CATALOG NUMBERS: 42-024-002, 42-984-004, 42-034-007
PRODUCT USE: Underwater welding electrode
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 31, 2007

SECTION 2 - HAZARDOUS INGREDIENTS

HAZARDOUS INGREDIENTS	%/RANGE	CAS NUMBER	OSHA PEL	ACGIH TLV
Steel	70-90	Not Assigned	N/Av.	5mg/m3
including: Nickel	< 0.2	7440-02-0	1mg/m3	1mg/m3
Chromium	< 0.2	7440-47-3	0.5mg/m3	0.5mg/m3
Manganese	<2	7439-96-5	1mg/m3	1mg/m3
Iron Oxide	5-15	1309-37-1	10mg/m3 Fume	5mg/m3 Fume
Aluminum	<1	7429-90-5	N.App	5mg/m3 Fume
Plasticized Vinyl	<5	Compound	N.App.	N.App.

When placed into underwater service, an electric arc is formed as in welding, generating intense heat, ultra-violet (UV) rays, fumes and gases. 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	%
7740-02-0	Nickel	0.18%
7439-96-5	Manganese	1.1%

CALIFORNIA PROPOSITION 65 CHEMICALS:

This product contains 0.18% Nickel, 0.0056% Cadmium, and .1856% Chromium, chemicals known to the State of California to cause cancer or reproductive toxicity.

SECTION 3 - PHYSICAL DATA

PHYSICAL STATE: Solid ODOR AND APPEARANCE: Yellow plastic over aluminum over light-brown flux-coated steel rod. VAPOR PRESSURE(mm Hg): N.App.
VAPOR DENSITY(air=1): 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: Insoluble

SECTION 4 - FIRE AND EXPLOSION DATA

FLAMMABILITY: Yes No IF YES, MEANS OF EXTINCTION: N.App.
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"

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: Iron oxide
 fumes 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. CARCINOGENICITY: Yes SIGNS AND SYMPTOMS OF EXPOSURE:
 Inflammation, blurred vision and headache MEDICAL CONDITIONS GENERALLY
 AGGRAVATED BY EXPOSURE: N.App. 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: For underwater operations only GLOVES: Butyl Rubber
 RESPIRATOR: As required for underwater operations EYE: Filter lens for U.V.
 protection, #12 or darker FOOTWEAR: N.App. CLOTHING: Suit constructed
 of rubber to minimize likelihood for shock. OTHER: N.App.
 VENTILATION: As required for underwater operations LOCAL EXHAUST: N.App.
 SPECIAL: N.Est. 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.