

50857

**MATERIAL SAFETY DATA SHEET****Filler Metals and Welding Rods**

"ESSENTIALLY SIMILAR" to U.S. Department of Labor Form OSHA 20  
(to comply with OSHA's Hazard Communication Standard 29 CFR 1910.1200)

**SECTION I**

Manufacturer's Name: TECHALLOY COMPANY, INC. Emergency Phone: (410) 633-9300 1-800-638-1458

Address: 2310 Chesapeake Avenue, Baltimore, MD 21222

Trade Name: TECHALLOY

Product Type: Covered Electrodes for SMAW

**Classification:** AWS:ENi-1, ENi-C1, ENiCu-7, ENiCrFe-1, ENiCrFe-2, ENiCrFe-3, ENiCrFe-4, ENiMo-1, ENiMo-3

ENiCrMo-1, ENiCrMo-2, ENiCrMo-3, ENiCrMo-4, ENiCrMo-5, ENiCrMo-6, ECuNi\*\*, ENiCrMo-10, ENiCrCoMo-1

MIL: 1N12, 3N12, 4N1A, 4N11, 4N12, 8N12, 9N10, 3N1B, 3N1C, 3N1L, 4N1W, CuNi

TECHALLOY: Ni Mang, Chro Mang

**SECTION II****HAZARDOUS INGREDIENTS/Identity Information**

**IMPORTANT:** This Section covers materials from which this product is manufactured.

Ingredients of The Product	CAS No.	Approx. % Percent	OSHA PEL Mg/M3	ACGIH TLV Mg/3	Carcinogenicity
Nickel	7440-02-0	40-70	1	1	Yes
*Chromium	7440-47-3	0-15	.05 (Chromium VI)	.05 (Chromium VI)	Yes
Iron	7439-89-6	.5-10	5	10 (as Fe <sub>2</sub> O <sub>3</sub> )	No
*Manganese	7439-96-5	.5-6	5	1	No
Molybdenum	7439-98-7	0-15	15	10	No
Columbium	7440-03-1	0-5	5	5	No
*Copper	7440-50-8	0-2	.1	.2	No
Silicon	7440-21-3	.1-1.0	5 (as SiO <sub>2</sub> )	3 (as SiO <sub>2</sub> )	No
Titanium	7440-32-6	0-2	15 (as TiO <sub>2</sub> )	10 (as TiO <sub>2</sub> )	No
Graphite	7782-42-5	0-3	Not Registered	5	No
Calcium Carbonate	1317-65-3	5-10	5 (as CaO)	10	No
Calcium Fluoride	14542-32-5	2-5	2.5 (as F)	2.5 (as F)	No
Strontium Carbonate	1633-05-2	0-15	Not Registered	Not Registered	No
Cryolite	15096-52-3	2-5	2.5 (as F)	2.5 (as F)	No
Potassium Titanate	12030-97-6	0-3	Not Registered	10	No
Titanium Dioxide	13463-67-7	0-10	15	10	No
Potassium Silicate	1312-76-1	0-2	Not Registered	5	No
Sodium Silicate	1344-09-8	1-5	Not Registered	5	No

\*The ingredients marked with an asterisk are covered under the reporting requirements of Section 313 of The Emergency Planning and Community Right to Know Act of 1986 and of 40 CFR 372.

\*\* These products contain about 70% Copper and 30% Nickel.

**SECTION III****PHYSICAL DATA**

NOT APPLICABLE

**SECTION IV****FIRE AND EXPLOSION HAZARD DATA**

Welding arc and sparks can ignite combustibles and flammables. Refer to American National Standard Z49.1 for fire prevention during the use of welding and allied procedures.

**SECTION V****HEALTH HAZARD DATA**

"Electric arc-welding may create one or more of the following health hazards: *Fumes and gases* can be dangerous to your health. *Arc Rays* can injure eyes and burn skin. *Electric Shock* can kill.

**EFFECTS OF OVEREXPOSURE:** "Short-term over exposure to welding fumes may result in discomfort such as: dizziness, nausea, or dryness or irritation of nose, throat, or eyes, tightness in chest, fever and allergic reactions. (see Sections 4 and 7)." "Long-term (chronic) over exposure to welding fumes may lead to siderosis (iron deposit in lungs) and is believed by some investigators to affect pulmonary function."

**EMERGENCY & FIRST AID PROCEDURES:** Remove to fresh air, obtain medical attention. Employ first aid techniques recommended by the American Red Cross.

MSDS 1.4-2 (11/85) Rev. 04/00

(Continued on Reverse Side)

