

# ROBINSON TECHNICAL PRODUCTS SOUTHWEST

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## MATERIAL SAFETY DATA SHEET FILLER METALS AND WELDING RODS

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

Manufacturer's Name: ROBINSON TECHNICAL PRODUCTS SOUTHWEST

Emergency Phone: 713-926-3232

Product Type: WELDING CONSUMABLES TIG/MIG/SAW

Classification: AWS: 410/ 502/ 505/ 515/ 521 / 80SB-2-L/90SB-3-L

AISI: 4130/6150

REVISED 09/15/94

### SECTION II HAZARDOUS INGREDIENTS/ Identity Information

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

ING. OF THE PRODUCT	CAS No.	OSHA PEL MG/M3	ACGIH TLV Mg/M3	CARCINOGENICITY
Iron	7439-89-6	5	10 (as Fe2O3)	NO
Manganese	7439-96-5	5	1	NO
Silicon	7440-21-3	5 (as SiO2)	3 (as SiO2)	NO*
Chromium	7440-47-3	.05 (Chromium VI)	.05 (Chromium VI)	YES
Molybdenum	7439-98-7	15	10	NO
Vanadium	7440-62-2	.01 (as V2O5)	.05 (as V2O2)	NO
Nickel	7440-02-0	1	1	YES



Ingredients in the electrode are important. The concentration of a given fume or gas component may decrease or increase by many times the original concentration in the electrode. Also, new compounds not in the electrode may form. Decomposition products of normal operation include those origination from the volition, reaction, or oxidation of the materials shown in Section 2, plus these from the base metal and coating, etc., and noted above.

reasonable expected fume constituents of these products could include primarily oxides of iron; secondarily complex oxides of manganese, silicon, nickel, chromium, molybdenum and vanadium. The present OSHA permissible exposure limits for hexavalent chromium is 0.05 mg/M and for nickel 1 mg/M, which will result in a significant reduction from the 5mg/M general fume level.

Gaseous reaction products may include carbon monoxide and carbon dioxide. Ozone and nitrogen oxides may be formed by the radiation from the arc, in addition to the shielding gases like argon and helium whenever they are employed.

One recommended way to determine the composition and quantity of fumes and gases to which workers are exposed is to take an air sample from inside the welder's helmet if worn or in the worker's breathing zone. Se AWS F1.1 and AWS F1.2 - 1985, available from the American Welding Society.

SEE AWS PUBLICATION; "FUMES AND GASES IN THE WELDING ENVIRONMENT"  
FUMES AND GASES POLYMERIZATION: NOT APPLICABLE

## SECTION VII SPILL OR LEAK PROCEDURES

NOT APPLICABLE

WASTE DISPOSAL METHOD: Prevent waste from contaminating surrounding environment. Discard any product residue, disposable container or liner in an environmentally acceptable manner, in full compliance with Federal, State and Local regulations.

## SECTION VIII SPECIAL PROTECTION INFORMATION (SEE NOTE)

"Read and understand the manufacturer's instructions and the precautionary label on the product. Ventilation - Use enough ventilation, local exhaust at the arc, or both, to keep the fumes and gases from the worker's breathing zone and the general area. Train the welder to keep his head out of the fumes. Respiratory Protection - Use respirable fumes respiratory air supplied respirator when welding in a confined space or where local exhaust or ventilation does not keep exposure below the recommended exposure limit. Eye Protection - Wear helmet or use face shield with filter lens. Provide protective screens and flash goggles, if necessary, to shield others. As a rule of thumb, start with a shade that is too dark to see the weld zone. Then go the next lighter shade which gives sufficient view of the

weld zone. **Protective Clothing** - Wear hand, head, and body protection which helps to prevent injury from radiation, sparks, and electrical shock. See ANSI Z49-1. At a minimum this includes welder's gloves and a protective face shield, and may include arm protectors, aprons, hats, shoulder protection, as well as dark substantial clothing. Train the welder not to touch live electrical parts and to insulate himself from work and ground.

## **SECTION IX**

### **SPECIAL PRECAUTIONS (SEE NOTE)**

**OTHER PRECAUTIONS:** Use exhaust system to clear welding fumes. Make sure that inhaled air does not contain fume constituents above permissible exposure levels.

**NOTE:** Other precautions for additional safety information on welding and cutting, see American Standard Z49-1-1983, Safety in Welding and Cutting, and the Welding Handbook, Vol. 1 Chapter 9, Safe Practices in Welding and Cutting, both available from American Welding Society, Inc. 550 N.W. Le Jeune Road, P.O. Box 351040, Miami, FL 33135, Tel (305) 443-9353.