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## MATERIAL SAFETY DATA SHEET

For U.S. Manufactured Welding Consumables and Related Products.  
May be used to comply with OSHA'S Hazard Communication Standard, 29 CFR 1910. 1200 and Superfund Amendments and Reauthorization Act (SARA) of 1986, Public Law 99-499.  
Standard must be consulted for specific requirements.

DATE PREPARED: 4232

### Section I – IDENTIFICATION

Material Name: "O CI 8235Z "o ild uteel wet welding electrodes;  
O CI 9236Z "o ild uteel wet welding electrodes.

Manufacturer: B O ci pwo "O hi 0kpe0f dc"O ci pwo WUC"  
" ; 9; "Nci gt" Tqcf .  
Rj grp, CA ; 4593

Emergency Tel.: (: 22+"; 79/6566 982/; 8: /896:  
Facsimile: (982+982/; 8: /896; "rcz  
Classification: AWS A5.1  
Product Type For: Group "A" Shielded Material  
Arc Welding (SMAW) Carbon Steel

**NOTE: This electrode series is for wet welding applications only.**

### Section II – HAZARDOUS MATERIALS (IMPORTANT)

This section covers the materials from which this product is manufactured. The fumes and gases produced during welding with normal use of this product are covered by Section 5.

The term "hazardous" in "Hazardous Materials" should be interpreted as a term required and defined in OSHA Hazard Communication Standard (29CFR Part 1910.1200). No hazard exists until this product is used in welding.

#### Exposure Limit (mg/m3)

<u>INGREDIENT</u>	<u>% WEIGHT</u>	<u>CAS NO.</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
Iron	70 – 90	7439-89-6	Not Reported	Not Reported
Manganese	1 – 6	7498-96-5	5 CL*	5 CL*
Potassium Silicate	<5	1312-76-1	Not Found	Not Found
Sodium Silicate	3 – 15	1344-09-8	Not Found	Not Found

NOTES: mppcf = millions of particles per cubic foot of air \*CL – ceiling limit



SHORT – TERM (ACUTE) OVEREXPOSURE to welding fumes may cause allergic reactions in some people and/or result in discomfort such as dizziness, nausea, or dryness or irritation of nose, throat or eyes.

PRIMARY ROUTES OF ENTRY are the respiratory system, eyes and/or skin. IRON, IRON OXIDE, MANGANESE – Remove from over exposure and apply artificial respiration if needed. Wash eyes or skin with water to remove dusts.

LONG - TERM (CHRONIC) OVEREXPOSURE may lead to Siderosis (iron deposits lungs) and is believed by some investigators to affect pulmonary functions.

PRIMARY ROUTE OF ENTRY is the respiratory system.

IRON, IRON OXIDE – Long term overexposure to iron fumes can cause deposits of iron in lungs. This condition is called “Siderosis”. Lungs will clear in time when exposure to iron and its compounds ceases. Iron and Magnetite (Fe<sub>3</sub>O<sub>4</sub>) are not regarded as fibrogenic materials.

MANGANESE – Long term overexposure to manganese compounds may affect the central nervous system. Symptoms include muscular weakness, tremors, similar to Parkinson’s disease. Behavioral changes and changes in handwriting may also appear. Employees exposed to manganese compounds should get quarterly medical examinations for early detection of manganism.

ARC RAYS can injure eyes and burn skin.

ELECTRIC SHOCK can kill.

See Section 7.

### **EMERGENCY AND FIRST AID PROCEDURES**

Call for medical aid. Employ first aid techniques recommended by the American Red Cross. Eyes & Skin: If irritation or flash burns develop after exposure, consult a physician.

### **CARCINOGENICITY**

The chemicals used for these products are not considered as possible carcinogens under OSHA (29 CFR 1910, 1200).

### **SECTION 7 – PRECAUTIONS FOR SAFE HANDLING & USE / APPLICABLE CONTROL MEASURES**

Read and understand the manufacturer’s instructions and the precautionary label on the product. (See American National Standard Z49.1 Safety in Welding and Cutting published by the American Welding Society, 550 N.W. LeJeune Rd., Miami, FL 33126 and OSHA Publication 2206 (29 CFR 1910), U.S. Government printing Office, Washington, D.C.20402 for more details on many of the following.)

**VENTILATION:** Use enough ventilation, local exhaust at the arc, or both, to keep the fumes and gases below TLV’s in the workers breathing zone and the general area. Train the welder to keep his head out of the fumes.

**RESPIRATORY PROTECTION:** Use NIOSH approved or equivalent fume respirator or air supplied respirator when welding in confined space or where local exhaust or ventilation does not keep exposure below TLV.

**EYE PROTECTION:** Wear helmet or use face shield with filter lens. As a rule of thumb begin with Shade Number 14. Adjust if needed by selecting the number of the next shade either lighter or darker. Provide protective screens and flash goggles, if necessary, to shield others.

**PROTECTIVE CLOTHING:** Wear hand, head and body protection which help 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.

### **PROCEDURE FOR CLEANUP OF SPILLS OR LEAKS:**

WASTE DISPOSAL: 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 or local regulations.

SPECIAL PRECAUTIONS: IMPORTANT: Maintain exposure below the PEL / TLV. Use industrial hygiene monitoring to ensure that your use of this material does not create exposures which exceed PEL / TLV. Always use exhaust ventilation. Refer to the following sources for important additional information.

ANSI Z49.1. The American Welding Society, 550 N.W. LeJuene Rd., Miami, FL 33126 – OSHA (29 CFR 1910) U.S. Dept. of Labor, Washington D.C. 20210.

Magnum believes this data to be accurate and to reflect qualified expert opinion regarding current research. No warranty is implied.