Filler Metals and Welding Rods

Product Trade Name/Product Classification(s): Mild and Low Alloy Steel Welding Wires

Section 1: Identification

Identity: Mild and Low Alloy Steel Welding Wires
Manufacturer's Name: Inweld Corporation
Address: Nine Portland St., Coplay, PA 18037
Product Trade Name / Product Classification(s):
ER 70S-2
ER 70S-3
ER 70S-6
ER 70S-7
ER 70S-8
R-45 (ER 45-8)
R-65 (ER 65-8)
EH 12K
EH 14

Section 2: Hazardous Materials

2. American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV).
3. Not known, nuisance particulate concentration per ACGIH is 10mg/m³.
5. STEL Short term exposure limit present in ER 80S only.

Section 3: Physical & Chemical Data

These products s shipped are non-hazardous, non-flammable, non-explosive and non-reactive.

Section 4: Fire and Explosion Hazard Data

Non-flammable: Welding arc and sparks can ignite combustibles. See 2-49.1 referenced in Section 7.

Section 5: Reactivity Data

Hazardous Decomposition Products:

Fumes cannot be classified simply. Their composition and quantity are dependent upon the metal being welded, the process, procedures and electrodes used. Other conditions which also influence the composition and quantity of the fumes and gases to which workers may be exposed include: coatings on the metal being welded (such as paint, plating, or galvanizing), number of welds and volume of work area, quantity and amount of ventilation, position of welder's head with respect to the fume plume, as well as the presence of contaminants in the atmosphere (such as chlorinated hydrocarbon vapors from cleaning and degreasing activities). The primary routes of entry of welding fumes and gases is by inhalation.

Ozone and nitrogen oxides may be formed by the radiation from the arc. Molybdenum. Gaseous reaction products may include carbon monoxide and carbon dioxide. Reasonably expected fume constituents from these products would include: complex oxides of iron, manganese, silicon, copper, and in the case of Inweld 80S -5 (ER 80S-5) Molybdenum. Gasous reaction products may include carbon monoxide and carbon dioxide. Copper and nitrogen oxides may be formed by the radiation from the arc. One reasonable way to determine the composition of fumes and gases to which workers are exposed is to take an air sample inside the welder's helmet, if worn, or in the worker's breathing zone. See ANSI/ASHA F1.1, available from the American Welding Society, P.O. Box 351040, Miami, FL 33135.

Section 6: Health Hazard Data

Threshold Limit Value: The ACGIH-recommended general limit for welding fume NOS (Not Otherwise Classified) is 5mg/m³. The ACGIH 1984-85 preface states: “The TLV-TWA should be used as guides in the control of health hazards and should not be used as firm lines between safe and dangerous concentrations.” See Section 5 for specific fume constituents, which may modify this TLV.

Effects of Overexposure:

FUMES AND GASES can be dangerous to your health. Aggravation of pre-existing respiratory or allergic conditions may occur in some workers.

SHORT-TERM (ACUTE) OVEREXPOSURE to welding fumes may result in discomfort such as: dizziness, nausea, or irritation of nose, throat, or eyes. LONG-TERM (CHRONIC) OVEREXPOSURE may lead to siderosis (iron deposits in the lung) and is believed by investigators to affect pulmonary function. ARC RAYS can injure eyes and burn skin.

ELECTRIC SHOCK can kill. See Section 7.

Section 7: Precautions for Safe Handling & Use/Applicable Control Measures

Ventilation:

Use enough ventilation, local exhaust at the arc, or both, to keep the fumes and gases below the TLV's in the worker's breathing zone and general area. Train the welder to keep his head out of the fume.

Respiratory Protection: Use respirable fume respirator or air supplies 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, start with a shade which is too dark to see the weld zone. Then go to the next lighter shade, which gives sufficient view of the weld zone. Provide protective screens and flash goggles, if necessary, to shield others.

Protective Clothing: Wear head, hand and body protection, which help to prevent injury from radiation, sparks and electrical shock. See ANSI Z-49.1. 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 Clean-up of Spills or Leaks: 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 8: Transportation Information

This material is NOT hazardous under DOT 173, 109 of the U.S. Dept. of Transportation

None applicable.

This product is not considered as dangerous goods.