MSDS WELDING RODS

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UNIWELD

SECTION 6 - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE: Electric arc welding may create one or more of the following health hazards:
ARC RAYS can injure eyes and burn skin.
ELECTRIC SHOCK can kill. See Section 7.
FUMES AND GASES can be dangerous to your health.
PRIMARY ROUTES OF ENTRY are the respiratory system, eyes and/or skin.
SHORT-TERM (ACUTE) OVEREXPOSURE EFFECTS:
WELDING FUMES - May result in discomfort such as dizziness, nausea or dryness or irritation of nose, throat or eyes.
IRON, IRON OXIDE - None are known. Treat as nuisance dust or fume.
MANGANESE - Metal fume fever characterized by chills, fever, upset stomach, vomiting, irritation of the throat and aching of body. Recovery is generally complete within 48 hours of the overexposure.
ALUMINUM OXIDE - Irritation of the respiratory system.
CALCIUM OXIDE - Dust or fumes may cause irritation of the respiratory system, skin and eyes.
MICA - Dust may cause irritation of the respiratory system, skin and eyes.
SILICA (AMORPHOUS) - Dust and fumes may cause irritation of the respiratory system, skin and eyes.
TITANIUM DIOXIDE - Irritation of respiratory system.
FLUORIDES - Fluoride compounds evolved may cause skin and eye burns, pulmonary edema and bronchitis.
CHROMIUM - Inhalation of fume with chromium (VI) compounds can cause irritation of the respiratory tract, lung damage and asthma-like symptoms. Swallowing chromium (VI) salts can cause severe injury or death. Dust on skin can form ulcers. Eyes may be burned by chromium (VI) compounds. Allergic reactions may occur in some people.
NICKEL, NICKEL COMPOUNDS - Metallic taste, nausea, tightness in chest, metal fume fever, allergic reaction.
MOLYBDENUM - Irritation of the eyes, nose and throat.
MAGNESIUM, MAGNESIUM OXIDE - Overexposure to the oxide may cause metal fume fever characterized by metallic taste, tightness of chest and fever. Symptoms may last 24 to 48 hours following overexposure.
LONG-TERM (CHRONIC) OVEREXPOSURE EFFECTS:
WELDING FUMES - Excess levels may cause bronchial asthma, lung fibrosis, pneumoconiosis or "siderosis."
IRON, IRON OXIDE FUMES - Can cause siderosis (deposits of iron in lungs) which some researchers believe may affect pulmonary function. Lungs will clear in time when exposure to iron and its compounds ceases. Iron and magnetite (Fe_3O_4) are not regarded as fibrogenic materials.
MANGANESE - Long-term overexposure to manganese compounds may affect the central nervous system. Symptoms may be similar to Parkinson's Disease and can include slowness, changes in handwriting, gait impairment, muscle spasms and cramps and less commonly, tremor and behavioral changes. Employees who are overexposed to manganese compounds should be seen by a physician for early detection of neurologic problems.
ALUMINUM OXIDE - Pulmonary fibrosis and emphysema.
CALCIUM OXIDE - Prolonged overexposure may cause ulceration of the skin and perforation of the nasal septum, dermatitis and pneumonia.
MICA - Prolonged overexposure may cause scarring of the lungs and pneumoconiosis characterized by cough, shortness of breath, weakness and weight loss.
SILICA (AMORPHOUS) - Research indicates that silica is present in welding fume in the amorphous form. Long term overexposure may cause pneumoconiosis. Noncrystalline forms of silica (amorphous silica) are considered to have little fibrotic potential.
TITANIUM DIOXIDE - Pulmonary irritation and slight fibrosis.
FLUORIDES - Serious bone erosion (Osteoporosis) and mottling of teeth.
CHROMIUM - Ulceration and perforation of nasal septum. Respiratory irritation may occur with symptoms resembling asthma. Studies have shown that chromate production workers exposed to hexavalent chromium compounds have an excess of lung cancers. Chromium (VI) compounds are more readily absorbed through the skin than chromium (III) compounds. Good practice requires the reduction of employee exposure to chromium (III) and (VI) compounds.
NICKEL, NICKEL COMPOUNDS - Lung fibrosis or pneumoconiosis. Studies of nickel refinery workers indicated a higher incidence of lung and nasal cancers.
MOLYBDENUM - Prolonged overexposure may result in loss of appetite, weight loss, loss of muscle coordination, difficulty in breathing and anemia.
MAGNESIUM, MAGNESIUM OXIDE - No adverse long term health effects have been reported in the literature.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:
Persons with pre-existing impaired lung functions (asthma-like conditions).
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:
Chromium VI and nickel compounds must be considered as carcinogens under OSHA (29 CFR 1910.1200). Chromium VI compounds are classified as IARC Group 1 and NTP Group 1 carcinogens. Nickel compounds are classified as IARC Group 1 and NTP Group 2 carcinogens.
Welding fumes must be considered as possible carcinogens under OSHA (29 CFR 1910.1200).
CALIFORNIA PROPOSITION 65:
Group A and B Products: WARNING: This product, when used for welding or cutting, produces fumes or gases which contain chemicals known to the State of California to cause birth defects and, in some cases, cancer. (California Health & Safety Code Section 25249.5 et seq)
Group C Products: WARNING: This product contains or produces a chemical known to the State of California to cause cancer and birth defects (or other reproductive harm). (California Health & Safety Code Section 25249.5 et seq.)

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, P.O. Box 351040, Miami, FL 33135 and OSHA Publication 2206 (29 CFR 1910), U.S. Government Printing Office, Washington, DC 20402 for more detail on any of the following.

VENTILATION: Use enough ventilation, local exhaust at the arc or both to keep the fumes and gases below PEL/TLV's in the worker's 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 PEL/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 next lighter and/or darker shade number. 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 nonsynthetic 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: Not applicable

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 and Local regulations.

SPECIAL PRECAUTIONS (IMPORTANT): Maintain exposure below the PELs/TLVs. Use industrial hygiene monitoring to ensure that your use of this material does not create exposures which exceed PELs/TLVs. Always use exhaust ventilation. Refer to the following sources for important additional information: ANSI Z49.1 from the American Welding Society, P.O. Box 351040, Miami, FL 33135 and OSHA (29 CFR 1910) from the U.S. Department of Labor, Washington, DC 20210.

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