72 Electrode Product Safety information:

HAZARD IDENTIFICATION:
Emergency Overview: This product is normally not considered hazardous as shipped. Avoid eye contact or inhalation of dust from the product. When this product is used in a welding process, the most important hazards are welding fumes, heat, radiation and electric shock.
Classification of the Substance/Mixture
CLP/GHS Classification (1272/2008):
Skin Irritation, Category 2
Skin Sensitization, Category 1
Eye Irritation, Category 2
Carcinogenicity, Category 2
Specific Target Organ Toxicity (Repeated Exposure), Category 1
EU Classification (67/548/EEC):
Toxic (T), Harmful (Zn), Irritant (Xi), Carcinogen Category 3, R48/23, R40, R36/38, R43

Labeling:
Signal Word: Danger
Hazard Statements:
H315--Causes skin irritation
H317-- May cause an allergic skin reaction
H319--Causes serious eye irritation
H351--Suspected of causing cancer
H372--- Cause damage to respiratory system, eyes, kidney, brain and nervous system through prolonged or repeated exposure
Precautionary Statements:
P201 – Obtain special instructions before use.
P202 – Do not handle until all safety precautions have been read and understood.
P260 – Do not breathe dust/fume/gas/mist/vapors/spray.
P264 – Wash skin and hair thoroughly after handling.
P270-- Do not eat, drink or smoke when using this product.
P272-- Contaminated work clothing should not be allowed out of the workplace
P280-- Wear protective gloves/eye protection/face protection.
P281-- Use personal protective equipment as required
P302+P352--IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338--IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue Rinsing
P308+P313--IF exposed or concerned: Get medical advice/attention
P314--Get medical advice/attention if you feel unwell
P333+P313--IF exposed or concerned: Get medical advice/attention
P337+P313--IF eye irritation persists: Get medical advice/attention
P362--Take off contaminated clothing and wash before reuse.
P405-- Store locked up.
P501-- Dispose of contents/container in accordance with local/regional/national/international regulations.

FIRST AID MEASURES:
Inhalation: Remove to fresh air immediately or administer oxygen. Get medical attention immediately.

Skin: Flush skin with large amounts of water and soap. If irritation develops and persists, get medical attention.
Eye: Flush eyes with water for at least 15 minutes. Get medical attention.
Ingestion: Obtain medical attention immediately if ingested.
Electric Shock: Disconnect and turn off the power. Use a nonconductive material to pull victim away from contact with live parts or wires. Immediately contact a physician.

FIRE-FIGHTING MEASURES:
Suitable Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Welding arcs and sparks can ignite combustible and flammable materials. Use the extinguishing media recommended for the burning material and fire situation.
Unsuitable Extinguishing Media: Do not use water on molten metal. Large fires may be flooded with water from a distance.
Specific Hazards Arising From Chemical: Keep away from heat/spark/open flames/hot surfaces. No smoking. Hydrogen fluoride, Calcium oxide, Iron oxides, Carbon oxides, Stronium oxides, Manganese/manganese oxides, Barium oxide, Nickel/nickel oxides, Aluminum oxide, Sodium oxides, Silicon oxides
Protective Equipment: Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

ACCIDENTAL RELEASE MEASURES:
Cleaning Measures: Solid objects may be picked up and placed into a container. Liquids or pastes should be scooped up and placed into a container. Wear proper protective equipment while handling these materials. Do not discard as refuse.

HANDLING AND STORAGE:
Precautions for Safe Handling: Handle with care to avoid stings or cuts. Wear gloves when handling welding consumables. Avoid exposure to dust. Do not ingest. Some individuals can develop an allergic reaction to certain materials. Retain all warning and identity labels.
Conditions for Safe Storage: Store in dry place in closed packages. Keep separate from chemical substances like acids and strong bases, which could cause chemical reactions. Ground/bond container and receiving equipment.

EXPOSURE CONTROLS/ PERSONAL PROTECTION:
Engineering Controls: Avoid exposure to welding fumes, spatter, electric shock, heated materials and dust. Ensure sufficient ventilation, local exhaust, or both, to keep welding fumes and gases from breathing zone and general area. Keep work place and condition of protective clothing clean and dry. Train welders to avoid contact with live electrical parts and insulate conductive parts. Check condition of protective clothing and equipment on a regular basis.
Exposure Limits: Use industrial hygiene equipment to ensure that exposure does not exceed applicable national exposure limits. Unless noted, all values are for 8 hour time weighted average.
Biological limits: No available data
Personal protection:
Respiratory protection: Use an air purifying dust respirator when welding or brazing in a confined space, or when local exhaust or ventilation is not sufficient to keep exposure values within safe limits.
Hands protection: Wear appropriate gloves to prevent skin contact.
EN 12477: Protection gloves for welders
Type B gloves are recommended when high dexterity is required as for TIG welding, while type A gloves

are recommended for other welding processes. The contact temp (ºC) is 100 and the threshold time (seconds) >15.
Eyes protection: Welder's helmet or face shield with color absorbing lenses. Shield and filter to provide protection from harmful UV radiation, infra red and molten metal approved to standard EN379. Filter shade to be a minimum of shade 9.
Skin protection: Heat-resistant protective clothing. Wear safety boots, apron, arm and shoulder protection. Keep protective clothing clean and dry. Clothing should be selected to suit the level, duration and purpose of the welding activity.

STABILITY AND REACTIVITY:
Chemical Stability: This product is stable under normal conditions.
Hazardous Reactions: Contact with chemical substances like acids or strong bases cause generation of gas.
Conditions to Avoid: Not applicable.
Incompatible Materials: Reacts with acid.
Hazardous Decomposition Products: When this product is used in a welding process, hazardous decomposition product would include those from volatilization, reaction or oxidation of the product material and those from the base metal and coating. The amount of fumes generated from this product varies with welding parameters and dimensions.
Refer to applicable national exposure limits for fume compounds, including those exposure limits for fume compounds found in material. Reasonably expected gaseous products would include carbon oxides, nitrogen oxides and ozone. Air contaminants around the welding area can be affected by the welding process and influence the composition and quality of fumes and gases produced.

TOXICOLOGICAL INFORMATION:
Signs and Symptoms of Overexposure: Inhalation of welding fumes and gases can be dangerous to your health. Classification of welding fumes is difficult because of varying base materials, coatings, air contaminants and processes. The Internal Agency for Research on Cancer had classified welding fumes as possible carcinogenic to humans (Group 2B)
Acute Effects: Overexposure to welding fumes may result in symptoms like metal fume fever, dizziness, nausea, dryness of irritation of the nose, throat, or eyes. May cause sensitization by skin contact.
Chronic Effects: : Overexposure to welding fumes may affect pulmonary function. Overexposure to manganese and manganese compounds above safe exposure limits can cause irreversible damage to the central nervous system, including the brain, symptoms which may include slurred speech, lethargy, tremor, muscular weakness, psychological disturbances and spastic gait. Prolonged inhalation of nickel (Classified 2B by IARC and R by NTP) above safe exposure limits may cause cancer. Long term inhalation exposure to iron (oxide fume or dust) can cause siderosis.

ECOLOGICAL INFORMATION:
Toxicity: Welding rods contain metals which are considered to be very toxic towards aquatic organisms. Finely divided welding rods are therefore considered harmful to aquatic organisms.
Persistence and Degradability: The welding rods consist of elements that cannot degrade any further in the environment
Bio accumulative Potential: Welding rods contain heavy metals which bio accumulates in the food chain. The following figures are the bio concentration factor (BCF) for the substances on their own:
BCF:
Manganese, BCF: 59052
Nickel, BCF: 16

Iron, BCF: 140000
Mobility in Soil: Welding rods are not soluble in water or soil. Particles formed by working welding rods can be transported in the air.
Other Adverse Effects: In Massive form, welding rods present no hazards to the aquatic environment. Welding materials could degrade into components originating from the materials used in the welding processes. Avoid exposure to conditions that could lead to accumulation in soils or groundwater. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

DISPOSAL CONSIDERATIONS:
Product: For product elimination, consult recycling companies or appropriate local authority
USA RCRA: This product is not considered hazardous waste if discarded.
Residue from welding consumables and processes could degrade and accumulate in soils and groundwater
Package: May be disposed in approved landfills provided local regulations are observed.

REGULATORY INFORMATION:
Safety, health and environment regulations/legislation specific for the substance or mixture: Read and understand the manufacturer's instructions, your employer's safety practices and the health and safety instructions on the label. Observe any federal and local regulations. Take precautions when welding and protect yourself and others.
Warning: Welding fumes and gases are hazardous to your health and may damage lungs and other organs. Use adequate ventilation. Electric shock can kill. Arc rays and sparks can injure eyes and burn skin. Wear correct head, hand, eye and body protection.
Chemical safety assessment: No
USA: Under the OSHA Hazard Communication Standard, this product is considered hazardous. 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 § 25249.5 et seq.) United States EPA Toxic Substance Control Act: All constituents of this product are on the TSCA inventory list or are excluded from listing.

OTHER INFORMATION:
The information in this document is believed to be correct as of the date issued. However, no warranty is expressed to be implied regarding the accuracy or completeness of this information. This information and product are furnished on the condition that the person receiving them shall make his own determinations as to the suitability of the product for his particular purpose and on the condition that he assumes the risk of his use thereof.

Hazard Statements:
H302--Harmful if swallowed
H314--Causes severe burns and eye damage
H315--Causes skin irritation
H317-- May cause an allergic skin reaction
H319--Causes serious eye irritation
H335--May cause respiratory irritation
351--Suspected of causing lung cancer
H372--Causes damage to organs through prolonged or repeated exposure
H373--May cause damage to organs through prolonged or repeated exposure.
R-Phrases

R22 – Harmful if swallowed.
R34 – Causes burns.
R36/37--Irritating to eyes and respiratory system
R36/37/38--Irritating to eyes, respiratory system, and skin
R37--Irritating to respiratory system
R40--Limited evidence of carcinogenic effect
R43--May cause sensitization by skin contact
R48--Danger of serious damage to health by prolonged exposure
R48/23--Toxic: danger of serious damage to health by prolonged exposure through inhalation and if swallowed
S-Phrases
S22--Do not breathe dust
S24/25--Avoid contact with skin and eyes.
S26--In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28--After contact with skin, wash immediately with plenty of water.
S36/37/39--Wear suitable protective clothing, gloves, and eye/face protection
S43--In case of fire, use fire-fighting equipment on basis class D.