

Safety Data Sheet

Calcium Fluoride	7789-75-5	1-11	2.5 (as F)	2.5 (as F)	No	 (Xi) R36/37/38	(H315) Skin Irrit.. 2  (H319) Eye Irrit.. 2A  (H335) STOT SE 3 	(H315) Skin Irrit.. 2  (H319) Eye Irrit.. 2A  (H335) STOT SE 3 
Feldspar	68476-25-5	1-11	NR	NR	No	Not Dangerous	Not Hazardous	Not Hazardous
#Manganese	7439-96-5	1-11	5	1	No	 (Xn) R48	(H373) STOT RE 2 	(H373) STOT RE 2 
Titanium Dioxide	13463-67-7	1-11	15	10	No	Carc. Cat. 3  (Xn) R40	(H351) Carc. 2 	(H351) Carc. 2 
Potassium Silicate	1312-76-1	1-11	NR	5	No	 (Xi) R36/38	(H315) Skin Irrit.. 2  (H319) Eye Irrit.. 2A 	(H315) Skin Irrit.. 2  (H319) Eye Irrit.. 2A 
Silicon	7440-21-3	1-11	5 (as SiO ₂)	3 (as SiO ₂)	No	 (F) R11	(H228) Flam. Sol. 2 	(H228) Flam. Sol. 2 
Iron	7439-89-6	65-75	10 (as Fe ₂ O ₃)	10 (as Fe ₂ O ₃)	No	Not Dangerous	Not Hazardous	Not Hazardous

Important: This section covers the materials of which the products manufactured. The fumes and gases produced during normal use of this product are covered in section 10. The term "Hazardous" in "Hazardous Material" should be interpreted as a term required and defined in OSHA Hazard Communication Standard 29CFR 1910-1200 and it does not necessarily imply the existence of hazard. The chemicals or compounds reportable by Section 313 of SARA are marked by the symbol #.

4. FIRST AID MEASURES:

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

Skin: Flush skin with large amounts of water. 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. Rinse mouth.

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.

5. 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.

Manganese/Manganese Oxide, Iron Oxides, Silicon oxides, Hydrogen fluoride, Calcium oxide.

Protective Equipment: Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES:

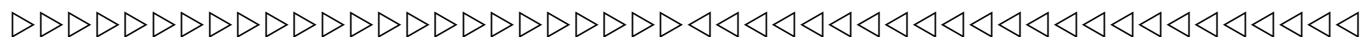
Personal Precautions: Refer to section 8.

Environment Precautions: Refer to section 13.

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.

7. 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.



Environmental Conditions	Operation of machines • Oxygen cutting machines • Plasma cutting machines • Resistance welding machines • Machines for thermal spraying • Bench welding
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Class 2	
Impact of Spatter	25 Drops
Heat Transfer (radiation)	RHTI 24 ≥ 16 seconds
Process	Manual welding with heavy formation of spatter and drops • MMA welding (with basic or cellulose-covered electrodes) • MAG welding (with CO2 or mixed gases) • MIG Welding (with high current) • Self shielded flux core arc welding • Plasma cutting • Gouging • Oxygen cutting • Thermal spraying
Environmental Conditions	Operation of machines • In confined spaces • At overhead welding/cutting or in comparable constrained positions

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance: Solid.

Color: Grey 1014, Grey 1162/ White Grey 1165/Tan 1169/ None

Odour: Odourless

Odour Threshold: Not Available

pH Value: Not Available

Melting Point/Melting Range: >2300° F, >1300° C

Freezing Point: Not Available

Boiling Point/Boiling Range: Not Available

Flash point: Not Available

Evaporation Rate: Not Available

Self-in flammability: Not Available

Explosion limits: Not Available

Vapour pressure: Not Available

Vapour density: Not Available

Density at 20°C: Not Available

Relative density: 6-9 g/cm³

Solubility: Insoluble in water.

Partition coefficient: Not Available

Auto-ignition temperature: Not Available

Decomposition temperature: Not Available

Other Information: No available data.

10. STABILITY AND REACTIVITY:

Chemical Stability: This product is stable under normal conditions.

brain, symptoms of which may include slurred speech, lethargy, tremor, muscular weakness, psychological disturbances and spastic gait. Prolonged inhalation of titanium dioxide (Classified 2B by IARC) above safe exposure limits can possibly cause cancer.

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.

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.

Manganese, BCF: 59052

Mobility in Soil: Welding rods are not soluble in water or soil. Particles formed by working welding rods can be transported in the air.

Welding materials could degrade into components originating from the materials used in the welding process. 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.

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.

UN-number: Welding rods are not classified as dangerous goods for transport and has no UN number.

UN proper shipping name: Welding rods are not classified as dangerous goods for transport and has no UN proper shipping name.

Transport hazard class: Welding rods are not classified as dangerous goods for transport.

Packing group: There are not any special precautions with which a user should or must comply or be aware of in connection with transport or conveyance either within or outside premises.

Environmental hazards: Welding rods are not environmentally hazardous according to the criteria of the UN Model Regulations (as reflected in the IMDG Code, ADR, RID and AND) and/or a marine pollutant to the IMDG Code.

Special precautions for users: There are not any special precautions which a user should or must comply or be aware of in connection with transport or conveyance either within or outside premises of the welding rod.

Transport in Bulk According to Annex III MARPOL 73/78 and the IBC Code: Welding rods in massive form do not subject under MARPOL 73/78 and the IBC Code. Not applicable – product is transported only in packaged form.

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 hand, head, eye and body protection.

Chemical safety assessment: No

