

MATERIAL SAFETY DATA SHEET

(MATRIX)



SECTION 1. MATERIAL IDENTIFICATION

PRODUCT DESCRIPTION

Our Grating and frame are functional, attractive and economical solution to exterior and interior drainage problem provides a dynamic and contemporary appearance to complement today's architectural spaces.

MATERIAL USED

Stainless Steel - Grade 430

MANUFACTURER'S NAME

SAKSHI INNOVATIONS PRIVATE LIMITED
Gurudwara Somasar Road, P.O. Sahnewal, Village TIBBA, Distt. LUDHIANA-141 120 (INDIA)

SECTION 2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Composition	CAS No.	% Weight
■ Carbon	7440-44-0	0.072
■ Chromium	7440-47-3	16.33
■ Iron	7439-89-6	82.21
■ Manganese	7439-96-5	0.616
■ Phosphorus	7723-14-0	0.033
■ Silicon	7440-21-3	0.315
■ Sulphur	7704-34-9	0.0066
■ Nickel	7440-02-0	0.171
■ Molybdenum	7439-98-7	0.020
■ Aluminium	7429-90-5	0.036
■ Cobalt	7440-48-4	0.031
■ Copper	7440-50-8	0.082
■ Niobium	7440-03-1	0.0069
■ Titanium	7440-32-6	0.0039
■ Vanadium	7440-62-2	0.031
■ Tin	7440-31-5	0.0055
■ Arsenic	7440-38-2	0.0021
■ Nitrogen	7727-37-9	0.028

SECTION 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW	: Welding, brazing, cutting, grinding and machining of this material may liberate potentially hazardous fumes & dust. This dust or fumes may be harmful if inhaled. Molten material may cause thermal burns.
FLAMMABILITY	: Not Applicable
PRIMARY ROUTE OF EXPOSURE	: Inhalation of fumes from Welding or Burning, Dust from Grinding or Cutting.
ROUTE OF EXPOSURE	: Eye, Skin contact or Inhalation
EFFECT OF SHORT TERM (ACUTE) EXPOSURE	: Steel production sheet, coil do not pose a significant health hazardous. However when subjected to Welding, Burning, Sawing, Brazing & grinding etc. Potentially hazardous fumes or dust may be generated. Needs adequate exhaust ventilation & appropriate protective equipment for workers.
INHALATION	: Fumes & dust may be irritating to respiratory system.
EYE CONTACT	: Dust or particles may cause mechanical irritation.
SKIN CONTACT	: Dust or particles may cause irritation due to abrasion.
INGESTION	: Not anticipated under normal circumstances. As such this material is not expected to be acutely toxic via ingestion.
EFFECT OF LONG-TERM (CHRONIC) EXPOSURE	: Chronic inhalation of high concentrations of metallic fumes and dusts are associated with the following conditions.
IRON OXIDE	: Chronic inhalation of excessive concentrations of iron oxide fumes or dust may results in development of a benign pneumoconiosis, called siderosis, which is observable as an x-ray change.
MANGANESE	: Chronic exposure to high concentrations of manganese fumes and dusts may increase the incidence of bronchitis pneumonia and lung damage and may adversely affect the central nervous system with symptoms resembling Parkinson's disease.
CHROMIUM	: The alleged health hazards associated with exposure to chromium are dependent on its oxidation state. The metal form (chromium as it exists in this product) is of very low toxicity. The hexavalent form is very toxic.
NICKEL	: Nickel is a common contact allergen & causes some sensitization, allergic contact dermatitis (ACD). Fumes are respiratory irritants and may cause respiratory disease, skin contact can also cause an allergic skin rash, nickel and its compounds have been reported to cause cancer of the lungs and sinuses.
SILICON	: Elementary silicon is an inert material which appears to lack the property of causing fibrosis in lung tissue. However, slight pulmonary lesions have been reported in Laboratory animals from intratracheal ingestion of silicon dust. Silicon dust has little adverse effect on lungs and does not appear to produce significant organic disease or toxic effects when exposures are kept under the TLV. Silicon may cause chronic respiratory effects.

SECTION 4. FIRST AID MEASURES

EYES	: If dust/fumes get in eyes, immediately flush with large amounts of running water for several minutes and seek Prompt medical attention.
SKIN	: If dust gets on skin wash contaminated area with mild soap and water. Remove and wash contaminated clothing if rash or irritation persists, seek medical attention.
INHALATION	: If inhalation of dust / fumes occurs, immediately remove victim from the adverse environment to fresh air and seek medical attention. If breathing has stopped, certified individuals should perform CPR. Keep affected person warm and at rest.
INGESTION	: If significant amounts of metal are ingested, seek medical attention.

SECTION 5. FIRE FIGHTING MEASURES

EXTINGUISHER MEDIA SUITABLE	: In case of fire, use water spray (Fog), foam, dry chemical extinguisher or Co ² .
SPECIAL EXPOSURE HAZARDS	: No special fire or explosion hazard. Promptly isolate the scene by removing all persons. Vicinity of the incident if there is a fire.
HAZARDOUS COMBUSTION	: Not applicable for solid form alloy. Toxic metal and metallic Oxide.
PRODUCTS	: Fumes may be evolved from fires involving finely divided alloy
SPECIAL PROTECTIVE	: Fire Fighters should wear appropriate protective equipment and Equipment of Fire Fighters self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Minimal problems with spills of this product would be expected to occur because of its solid form. Protective Equipment: Gloves and barrier creams may be necessary to prevent skin sensitization and dermatitis. If your process involves grinding or any other action that causes the release of dust or fumes, approved safety glasses or goggles should be worn

SECTION 7. HANDLING & STORAGE

HANDLING PRECAUTIONS	: Providing good ventilation and/or local exhaust systems are used.
STORAGE REQUIREMENTS	: Store in a dry place.
PACKAGING MATERIAL RECOMMENDED	: Use original container.

SECTION 8. EXPOSURE CONTROLS/ PERSONAL PROTECTIONS

RESPIRATORY PROTECTION	: NIOSH / MSHA approved dust/mist/fume respirators should be used during welding, burning and grinding operations, if applicable exposure limits are exceeded.
EYE PROTECTION	: Safety glasses should always be worn when grinding or cutting. Face shields should be worn when welding or burning.
SKIN PROTECTION	: Skin covering working clothes, wear dust proof overalls if large quantity of dust is generated.
HYGIENE MEASURES	: Wash all exposed skin and face thoroughly after handling products before eating, smoking or using the lavatory and at the end of the working period.
ENVIRONMENTAL EXPOSURE CONTROLS	
TECHNICAL MEASURES	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9. PHYSICAL & CHEMICAL PROPERTIES

PHYSICAL STATE	: Solid
MELTING TEMPERATURE	: 1425-1510 °C
DENSITY (G/CM ³)	: 7.750
HARDNESS (HV _S)	: 175
FINISH	: No.4 or B.A

SECTION 10. REACTIVITY AND STABILITY

STABILITY	: The product is stable.
POSSIBILITY OF HAZARDOUS REACTIONS	: Under normal conditions of storage and use, hazardous reactions will Not Occur.

SECTION 11. TOXICOLOGICAL INFORMATION

According to our experience and information the product has no harmful effects on health if properly handled.

SECTION 12. ECOLOGICAL INFORMATION

The product is practically insoluble in water. In views of its consistency and insolubility in water, no ecological Problems are to be expected if the product is properly handled.

SECTION 13. DISPOSAL CONSIDERATIONS

METHODS OF DISPOSAL	: Steel scrap should be recycled wherever possible
GENERAL INFORMATION	: Dispose of in accordance with federal, provincial, state Or local regulations.

SECTION 14. TRANSPORT INFORMATION

Material is not listed as a hazardous substance for any mode of transportation.

SECTION 15. REGULATORY INFORMATION

SARA TITLE III HAZARD CATEGORIZATION	: Product (Dust and Fume) is categorized as an immediate (acute) health hazard and a delayed (chronic) Health hazard is defined by 40 CFR 370.
SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (EHSS):	: No components are listed as extremely hazardous substances

SECTION 16. OTHER INFORMATION

The information provided herein is Compiled by Sakshi to be accurate from sources believed to be reliable, but it is the responsibility of the user investigate and understand other pertinent sources of information to comply with all laws and procedures applicable to the safe handling and use of this product, and to determine the suitability of the product for its intended use. Sakshi makes no warranty, express or implied, concerning the product or the merchantability or fitness thereof for any purpose or concerning the accuracy of any information provided.