MATERIAL SAFETY DATA SHEET

(PEARL)

PRODUCT DESCRIPTION

MATERIAL IDENTIFICATION

SECTION 1.

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**

MANUFACTURER'S NAME

Stainless Steel - Grade 316

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.

7440-44-0

7440-47-3

% Weight

0.022

16.77

67.91

Welding, brazing, cutting, grinding and machining of this material may liberate potentially hazardous fumes & dust. This dust or fumes may be harmful if inhaled.

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

The alleged health hazards associated with exposure to chromium are dependent

dermatitis (ACD). Fumes are respiratory irritants and may cause respiratory

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

workers . The main features were joint pains in the knees, hands, feet, articular

and wash contaminated clothing if rash or irritation persists, seek medical attention.

If inhalation of dust / fumes occurs, immediately remove victim from the adverse environment to fresh air and seek medical attention. If breathing has stopped,

: No special fire or explosion hazard. Promptly isolate the scene by removing all

Fire Fighters should wear appropriate protective equipment and Equipment of Fire Fighters self-contained breathing apparatus (SCBA) with afull face-piece

Fumes may be evolved from fires involving finely divided alloy

Providing good ventilation and/or local exhaust systems are used.

Skin covering working clothes, wear dust proof overalls if large quantity of

Emissions from ventilation or work process equipment should be checked to

smoking or using the lavatory and at the end of the working period.

Wash all exposed skin and face thoroughly after handling products before eating,

-	Iron	<i>7</i> 439-89-6
-	Manganese	<i>7</i> 439-96-5

Carbon

Chromium

■ Manganese 7439-96-5 1.761 ■ Phosphorus 7723-14-0 0.039 ■ Silicon 7440-21-3 0.359 ■ Sulphur 7704-34-9 0.0055 ■ Nickel 7440-02-0 10.24 ■ Molybdenum 7439-98-7 2.074 ■ Aluminium 7429-90-5 0.013 ■ Cobalt 7440-48-4 0.21 ■ copper 7440-50-8 0.403 ■ Niobium 7440-03-1 0.019 ■ Titanium 7440-32-6 0.0060 ■ Vanadium 7440-33-7 0.014 ■ Tin 7440-31-5 0.012 ■ Arsenic 7440-38-2 0.0075 ■ Nitrogen 7727-37-9 0.066			
Silicon 7440-21-3 0.359 Sulphur 7704-34-9 0.0055 Nickel 7440-02-0 10.24 Molybdenum 7439-98-7 2.074 Aluminium 7429-90-5 0.013 Cobalt 7440-48-4 0.21 copper 7440-50-8 0.403 Niobium 7440-03-1 0.019 Titanium 7440-32-6 0.0060 Vanadium 7440-33-7 0.014 Tin 7440-31-5 0.012 Arsenic 7440-38-2 0.0075	Manganese	<i>7</i> 439-96-5	1.761
Sulphur 7704-34-9 0.0055 Nickel 7440-02-0 10.24 Molybdenum 7439-98-7 2.074 Aluminium 7429-90-5 0.013 Cobalt 7440-48-4 0.21 copper 7440-50-8 0.403 Niobium 7440-03-1 0.019 Titanium 7440-32-6 0.0060 Vanadium 7440-62-2 0.069 Tungsten 7440-33-7 0.014 Tin 7440-31-5 0.012 Arsenic 7440-38-2 0.0075	Phosphorus	<i>77</i> 23-14-0	0.039
■ Nickel 7440-02-0 10.24 ■ Molybdenum 7439-98-7 2.074 ■ Aluminium 7429-90-5 0.013 ■ Cobalt 7440-48-4 0.21 ■ copper 7440-50-8 0.403 ■ Niobium 7440-03-1 0.019 ■ Titanium 7440-32-6 0.0060 ■ Vanadium 7440-62-2 0.069 ■ Tungsten 7440-33-7 0.014 ■ Tin 7440-31-5 0.012 ■ Arsenic 7440-38-2 0.0075	Silicon	7440-21-3	0.359
■ Molybdenum 7439-98-7 2.074 ■ Aluminium 7429-90-5 0.013 ■ Cobalt 7440-48-4 0.21 ■ copper 7440-50-8 0.403 ■ Niobium 7440-03-1 0.019 ■ Titanium 7440-32-6 0.0060 ■ Vanadium 7440-62-2 0.069 ■ Tungsten 7440-33-7 0.014 ■ Tin 7440-31-5 0.012 ■ Arsenic 7440-38-2 0.0075	■ Sulphur	7704-34-9	0.0055
 Aluminium Cobalt Copper 7440-48-4 0.21 copper 7440-50-8 Niobium Titanium 7440-03-1 Uanadium Tungsten Tin T440-31-5 O.012 Arsenic 7440-38-2 O.0075 	■ Nickel	7440-02-0	10.24
■ Cobalt 7440-48-4 0.21 ■ copper 7440-50-8 0.403 ■ Niobium 7440-03-1 0.019 ■ Titanium 7440-32-6 0.0060 ■ Vanadium 7440-62-2 0.069 ■ Tungsten 7440-33-7 0.014 ■ Tin 7440-31-5 0.012 ■ Arsenic 7440-38-2 0.0075	■ Molybdenum	7439-98-7	2.074
Copper 7440-50-8 0.403 Niobium 7440-03-1 0.019 Titanium 7440-32-6 0.0060 Vanadium 7440-62-2 0.069 Tungsten 7440-33-7 0.014 Tin 7440-31-5 0.012 Arsenic 7440-38-2 0.0075	Aluminium	<i>7</i> 429-90-5	0.013
■ Niobium 7440-03-1 0.019 ■ Titanium 7440-32-6 0.0060 ■ Vanadium 7440-62-2 0.069 ■ Tungsten 7440-33-7 0.014 ■ Tin 7440-31-5 0.012 ■ Arsenic 7440-38-2 0.0075	■ Cobalt	7440-48-4	0.21
■ Titanium 7440-32-6 0.0060 ■ Vanadium 7440-62-2 0.069 ■ Tungsten 7440-33-7 0.014 ■ Tin 7440-31-5 0.012 ■ Arsenic 7440-38-2 0.0075	copper	<i>7</i> 440-50-8	0.403
■ Vanadium 7440-62-2 0.069 ■ Tungsten 7440-33-7 0.014 ■ Tin 7440-31-5 0.012 ■ Arsenic 7440-38-2 0.0075	■ Niobium	7440-03-1	0.019
■ Tungsten 7440-33-7 0.014 ■ Tin 7440-31-5 0.012 ■ Arsenic 7440-38-2 0.0075	■ Titanium	7440-32-6	0.0060
■ Tin 7440-31-5 0.012 ■ Arsenic 7440-38-2 0.0075	■ Vanadium	7440-62-2	0.069
■ Arsenic 7440-38-2 0.0075	■ Tungsten	7440-33-7	0.014
	■ Tin	7440-31-5	0.012
■ Nitrogen 7727-37-9 0.066	Arsenic	7440-38-2	0.0075
	■ Nitrogen	7727-37-9	0.066

Molten material may cause thermal burns.

& appropriate protective equipment for workers.

Fumes & dust may be irritating to respiratory system. Dust or particles may cause mechanical irritation.

Dust or particles may cause irritation due to abrasion.

Eye, Skin contact or Inhalation

FLAMMABILITY Not Applicable PRIMARY ROUTE OF EXPOSURE Inhalation of fumes from Welding or Burning, Dust from Grinding or Cutting.

EFFECT OF SHORT TERM (ACUTE) EXPOSURE

SECTION 3.

EMERGENCY OVERVIEW

ROUTE OF EXPOSURE

INHALATION

CHROMIUM

SECTION 4.

INHALATION

SUITABLE

PRODUCTS

SPECIAL PROTECTIVE

HANDLING PRECAUTIONS

STORAGE REQUIREMENTS

SECTION 8.

SKIN PROTECTION

HYGIENE MEASURES

TECHNICAL MEASURES

SECTION 9.

PHYSICAL STATE

DENSITY (G/CM3)

SECTION 10.

STABILITY

REACTIONS

SECTION 12.

SECTION 13.

GENERAL INFORMATION

SECTION 14.

CATEGORIZATION

SECTION 16.

MELTING TEMPERATURE

POSSIBILITY OF HAZARDOUS

PACKAGING MATERIAL RECOMMENDED

ENVIRONMENTAL EXPOSURE CONTROLS

SPECIAL EXPOSURE HAZARDS

EYE CONTACT SKIN CONTACT HAZARDS IDENTIFICATION

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. Chronic exposure to high concentrations of manganese fumes and dusts may **MANGANESE**

FIRST AIDS MEASURES

increase the incidence of bronchitis pneumonia and lung damage and may adversely affect the central nervous system with symptoms resembling

Parkinson's disease.

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

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. Elementary silicon is an inert material which appears to lack the property of SILICON

significant organic disease or toxic effects when exposures are kept under the TLV. Silicon may cause chronic respiratory e ffects. **MOLYBDENUM** Based on animal experiments, molybdenum and its compounds are highly toxic. Some evidence of liver dysfunction with hyperbilirubinemia have been reported in workmen chronically exposed . In addition signs of gout have been found in factory

deformities, erythema, and edema of the joint areas.

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

certified individuals should perform CPR. Keep affected person warm and at rest. INGESTION If significant amounts of metal are ingested, seek medical attention.

FIRE FIGHTING MEASURES SECTION 5. EXTINGUISHER MEDIA : In case of fire, use water spray (Fog), foam, dry chemical extinguisher or Co².

HAZARDOUS COMBUSTION Not applicable for solid form alloy. Toxic metal and metallic Oxide.

operated in positive pressure mode.

persons. Vicinity of the incident if there is a fire.

SECTION 6. ACCIDENTAL RELEASE MEASURES Minimal problems with spills of this product would be expected to occur because of its solid form.

Store in a dry place.

Use original container.

EXPOSURE CONTROLS/ PERSONAL PROTECTIONS

HANDELING & STORAGE SECTION 7.

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

RESPIRATORY PROTECTION NIOSH / MSHA approved dust/mist/fume respirators should be used during welding, burning and grinding operations, if applicable exposure

EYE PROTECTION Safety glasses should always be worn when grinding or cutting. Face shields should be worn when welding or burning.

limits are exceeded.

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.

HARDNESS (HV5) 205 **FINISH** Black Powder Coated

on health if properly handled.

The product is stable.

SECTION 11. TOXICOLOGICAL INFORMATION According to our experience and information the product has no harmful effects

ECHOLOGICAL INFORMATION

TRANSPORT INFORMATION

REACTIVITY AND STABILITY

PHYSICAL & CHEMICAL PROPERTIES

Solid

7.750

1375-1400 ℃

properly handled. **DISPOSAL CONSIDERATIONS**

Dispose of in accordance with federal, provincial, state Or local regulations.

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

Under normal conditions of storage and use, hazardous reactions will Not Occur.

METHODS OF DISPOSAL Steel scrap should be recycled wherever possible

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

SECTION 15. **REGULATORY INFORMATION** SARA TITLE III HAZARD Product (Dust and Fume) is categorized as an immediate (acute) health hazard

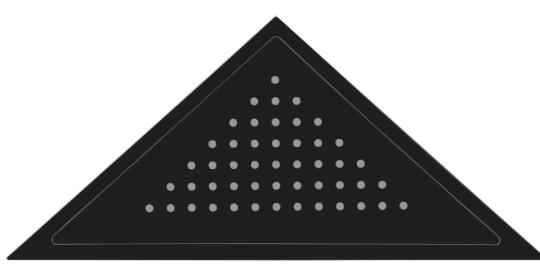
SARA TITLE III SECTION 302 No components are listed as extremely hazardous substances EXTREMELY HAZARDOUS SUBSTANCES (EHSS):

OTHER INFORMATION

and a delayed (chronic) Health hazard is defined by 40 CFR 370.

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.

MATERIAL SAFETY DATA SHEET (PEARL)



PRODUCT DESCRIPTION

MATERIAL IDENTIFICATION

SECTION 1.

SECTION 2.

SECTION 3.

MANGANESE

SECTION 4.

EYES

SKIN

INGESTION

SUITABLE

PRODUCTS

SPECIAL PROTECTIVE

STORAGE REQUIREMENTS

EYE PROTECTION

SKIN PROTECTION

TECHNICAL MEASURES

PHYSICAL STATE

DENSITY (G/CM3)

SECTION 10.

STABILITY

REACTIONS

MELTING TEMPERATURE

POSSIBILITY OF HAZARDOUS

GENERAL INFORMATION

EXTREMELY HAZARDOUS

SECTION 14.

PACKAGING MATERIAL RECOMMENDED

ENVIRONMENTAL EXPOSURE CONTROLS

SPECIAL EXPOSURE HAZARDS

EMERGENCY OVERVIEW

PRIMARY ROUTE OF EXPOSURE

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**

MANUFACTURER'S NAME

Stainless Steel - Grade 304

SAKSHI INNOVATIONS PRIVATE LIMITED

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

COMPOSITION / INFORMATION ON INGREDIENTS

CAS No.

7440-21-3

% Weight

0.065

0.330

Welding, brazing, cutting, grinding and machining of this material may liberate

Inhalation of fumes from Welding or Burning, Dust from Grinding or Cutting.

Chronic inhalation of high concentrations of metallic fumes and dusts are

on its oxidation state. The metal form (chromium as it exists in this product) is of

compounds have been reported to cause cancer of the lungs and sinuses.

If dust/fumes get in eyes, immediately flush with large amounts of running water

If dust gets on skin wash contaminated area with mild soap and water. Remove

If significant amounts of metal are ingested, seek medical attention.

No special fire or explosion hazard. Promptly isolate the scene by removing all

Fire Fighters should wear appropriate protective equipment and Equipment of Fire Fighters self-contained breathing apparatus (SCBA) with afull face-piece

Safety glasses should always be worn when grinding or cutting. Face shields

Skin covering working clothes, wear dust proof overalls if large quantity of

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

Under normal conditions of storage and use, hazardous reactions will Not Occur.

According to our experience and information the product has no harmful effects

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

smoking or using the lavatory and at the end of the working period.

and wash contaminated clothing if rash or irritation persists, seek medical attention.

potentially hazardous fumes & dust. This dust or fumes may be harmful if inhaled.

hazardous fumes or dust may be generated. Needs adequate exhaust ventilation

Chemical Composition Carbon 7440-44-0 Silicon

Manganese	<i>7</i> 439-96-5	1.030		
Phosphorus	<i>77</i> 23-14-0	0.041		
■ Sulphur	7704-34-9	0.006		
Chromium	7440-47-3	18.250		
Molybdenum	<i>7</i> 439-98-7	0.240		
Nickel	7440-02-0	8.240		
Aluminium	<i>7</i> 429-90-5	0.0034		
Cobalt	7440-48-4	0.220		
Copper	7440-50-8	0.360		
■ Niobium	7440-03-1	0.0079		
■ Titanium	7440-32-6	0.004		
■ Venadium	7440-62-2	0.006		
Tungsten	7440-33-7	0.021		
■ Tin	7440-31-5	0.008		
Arsenic	7440-38-2	0.003		
Boron	7440-42-8	0.0007		
■ Nitrogen	7727-37-9	0.024		
■ Iron	<i>7</i> 439-89-6	71.140		
HAZARDS IDENTIFICATION				

FLAMMABILITY Not Applicable

ROUTE OF EXPOSURE Eye, Skin contact or Inhalation Steel production sheet, coil do not pose a significant health hazardous. However when subjected to Welding, Burning, Sawing, Brazing & grinding etc. Potentially

Molten material may cause thermal burns.

& appropriate protective equipment for workers.

EFFECT OF SHORT TERM (ACUTE) EXPOSURE 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.

associated with the following conditions.

Chronic inhalation of excessive concentrations of iron oxide fumes or dust may **IRON OXIDE** results in development of a benign pneumoconiosis, called siderosis, which is

EFFECT OF LONG-TERM (CHRONIC) EXPOSURE

observable as an x-ray change. 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. The alleged health hazards associated with exposure to chromium are dependent **CHROMIUM**

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

Elementary silicon is an inert material which appears to lack the property of SILICON 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.

for several minutes and seek Prompt medical attention.

INHALATION If inhalation of dust / fumes occurs, immediately remove victim from the adverse

FIRST AIDS MEASURES

environment to fresh air and seek medical attention. If breathing has stopped, certified individuals should perform CPR. Keep affected person warm and at rest.

FIRE FIGHTING MEASURES SECTION 5. EXTINGUISHER MEDIA In case of fire, use water spray (Fog), foam, dry chemical extinguisher or Co².

persons. Vicinity of the incident if there is a fire.

Fumes may be evolved from fires involving finely divided alloy

HAZARDOUS COMBUSTION Not applicable for solid form alloy. Toxic metal and metallic Oxide.

SECTION 6. ACCIDENTAL RELEASE MEASURES Minimal problems with spills of this product would be expected to occur because of its solid form.

operated in positive pressure mode.

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. Providing good ventilation and/or local exhaust systems are used. HANDLING PRECAUTIONS

Store in a dry place.

Use original container.

limits are exceeded.

EXPOSURE CONTROLS/ PERSONAL PROTECTIONS SECTION 8. NIOSH / MSHA approved dust/mist/fume respirators should be used during RESPIRATORY PROTECTION welding, burning and grinding operations, if applicable exposure

should be worn when welding or burning.

dust is generated. HYGIENE MEASURES Wash all exposed skin and face thoroughly after handling products before eating,

Solid

7.750

1400-1450 °C

HANDELING & STORAGE

equipment will be necessary to reduce emissions to acceptable levels. SECTION 9. PHYSICAL & CHEMICAL PROPERTIES

HARDNESS (HV5) **FINISH** Black Powder Coated

The product is stable.

REACTIVITY AND STABILITY

on health if properly handled. SECTION 12. **ECHOLOGICAL INFORMATION**

properly handled.

SECTION 13. **DISPOSAL CONSIDERATIONS** METHODS OF DISPOSAL Steel scrap should be recycled wherever possible

TRANSPORT INFORMATION

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

Dispose of in accordance with federal, provincial, state Or local regulations.

SECTION 15. **REGULATORY INFORMATION** SARA TITLE III HAZARD

Product (Dust and Fume) is categorized as an immediate (acute) health hazard

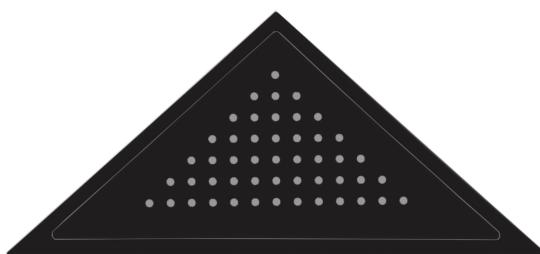
CATEGORIZATION and a delayed (chronic) Health hazard is defined by 40 CFR 370. SARA TITLE III SECTION 302 No components are listed as extremely hazardous substances

SUBSTANCES (EHSS): OTHER INFORMATION SECTION 16.

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.

MATERIAL SAFETY DATA SHEET

(PEARL)



PRODUCT DESCRIPTION

SECTION 1.

MATERIAL IDENTIFICATION

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

CAS No.

% Weight

0.072

16.33

■ Carbon 7440-44-0 ■ Chromium 7440-47-3

Chemical Composition

Iron	<i>7</i> 439-89-6	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	<i>7</i> 440-31-5	0.0055
Arsenic	7440-38-2	0.0021
Nitrogen	7727-37-9	0.028

FLAMMABILITY : Not Applicable PRIMARY ROUTE OF EXPOSURE : Inhalation of fumes from Welding or Burning, Dust from Grinding or Cutting.

HAZARDS IDENTIFICATION

SECTION 3.

INHALATION EYE CONTACT

INGESTION

MANGANESE

NICKEL

SILICON

SKIN

EXTINGUISHER MEDIA

HAZARDOUS COMBUSTION

HANDLING PRECAUTIONS

STORAGE REQUIREMENTS

RESPIRATORY PROTECTION

SKIN PROTECTION

HYGIENE MEASURES

TECHNICAL MEASURES

PHYSICAL STATE

SECTION 10.

STABILITY

REACTIONS

SECTION 13.

SECTION 15.

SUBSTANCES (EHSS):

SECTION 16.

METHODS OF DISPOSAL

MELTING TEMPERATURE

POSSIBILITY OF HAZARDOUS

PACKAGING MATERIAL RECOMMENDED

ENVIRONMENTAL EXPOSURE CONTROLS

SUITABLE

PRODUCTS

SKIN CONTACT

EMERGENCY OVERVIEW

ROUTE OF EXPOSURE : Eye, Skin contact or Inhalation
Steel production sheet, coil do not pose a significant health hazardous. However when subjected to Welding, Burning, Sawing, Brazing & grinding etc. Potentially

Molten material may cause thermal burns.

& appropriate protective equipment for workers.

EFFECT OF SHORT TERM (ACUTE) EXPOSURE

Fumes & dust may be irritating to respiratory system.

Dust or particles may cause mechanical irritation.

Dust or particles may cause irritation due to abrasion.

Not anticipated under normal circumstances. As such this material is not expected

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

Nickel is a common contact allergen & causes some sensitization, allergic contact

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

If dust gets on skin wash contaminated area with mild soap and water. Remove

In case of fire, use water spray (Fog), foam, dry chemical extinguisher or Co².

Not applicable for solid form alloy. Toxic metal and metallic Oxide.

Providing good ventilation and/or local exhaust systems are used.

NIOSH / MSHA approved dust/mist/fume respirators should be used during

Skin covering working clothes, wear dust proof overalls if large quantity of

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

Under normal conditions of storage and use, hazardous reactions will Not Occur.

smoking or using the lavatory and at the end of the working period.

Wash all exposed skin and face thoroughly after handling products before eating,

welding, burning and grinding operations, if applicable exposure

Fumes may be evolved from fires involving finely divided alloy

and wash contaminated clothing if rash or irritation persists, seek medical attention.

hazardous fumes or dust may be generated. Needs adequate exhaust ventilation

Welding, brazing, cutting, grinding and machining of this material may liberate potentially hazardous fumes & dust. This dust or fumes may be harmful if inhaled.

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.

to be acutely toxic via ingestion.

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

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.

very low toxicity. The hexavalent form is very toxic.

significant organic disease or toxic effects when exposures are kept under the TLV. Silicon may cause chronic respiratory effects.

SECTION 4. FIRST AIDS MEASURES

: If dust/fumes get in eyes, immediately flush with large amounts of running water

for several minutes and seek Prompt 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

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.

SPECIAL PROTECTIVE : Fire Fighters should wear appropriate protective equipment and Equipment of Fire Fighters self-contained breathing apparatus (SCBA) with afull face-piece operated in positive pressure mode.

glasses or goggles should be worn

SECTION 7. HANDELING & STORAGE

Store in a dry place.

Use original container.

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

SECTION 8. EXPOSURE CONTROLS/ PERSONAL PROTECTIONS

SECTION 6. ACCIDENTAL RELEASE MEASURES

EYE PROTECTION : Safety glasses should always be worn when grinding or cutting. Face shields should be worn when welding or burning.

limits are exceeded.

dust is generated.

equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9. PHYSICAL & CHEMICAL PROPERTIES

DENSITY (G/CM3) : 7.750

HARDNESS (HV5) : 175

FINISH : Black Powder Coated

The product is stable.

Solid

1425-1510 °C

SECTION 11. TOXICOLOGICAL INFORMATION According to our experience and information the product has no harmful effects

REACTIVITY AND STABILITY

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.

on health if properly handled.

GENERAL INFORMATION : Dispose of in accordance with federal, provincial, state Or local regulations. SECTION 14. TRANSPORT INFORMATION

DISPOSAL CONSIDERATIONS

REGULATORY INFORMATION

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

Steel scrap should be recycled wherever possible

SARA TITLE III HAZARD : Product (Dust and Fume) is categorized as an immediate (acute) health hazard CATEGORIZATION and a delayed (chronic) Health hazard is defined by 40 CFR 370.

SARA TITLE III SECTION 302 : No compone

OTHER INFORMATION

No components are listed as extremely hazardous substances

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.