MATERIAL DATA SAFETY SHEET

(MOSAIC)



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

Stainless Steel - Grade 316

SAKSHI INNOVATIONS PRIVATE LIMITED

MANUFACTURER'S NAME

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

COMPOSITION / INFORMATION ON INGREDIENTS

Carbon

Chromium

Iron

Manganese

Phosphorus

Silicon

Sulphur

Nickel

Molybdenum

Aluminium

Cobalt

copper

Niobium

Tungsten Tin

Arsenic

Nitrogen

HAZARDS IDENTIFICATION

SECTION 2. Chemical Composition CAS No. % Weight

7440-44-0

7440-47-3

*7*439-89-6

7439-96-5

7723-14-0

7440-21-3

7704-34-9

7440-02-0

7439-98-7

7429-90-5

7440-48-4

7440-50-8

7440-03-1

7440-32-6

7440-62-2

7440-33-7

7440-31-5

7440-38-2

7727-37-9

& 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.

0.022

16.77

67.91

1.761

0.039

0.359

0.0055

10.24

2.074

0.013

0.21

0.403

0.019

0.0060

0.069

0.014

0.012

0.0075

0.066

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

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

Chronic inhalation of high concentrations of metallic fumes and dusts are

Chronic inhalation of excessive concentrations of iron oxide fumes or dust may

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

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

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

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

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

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

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

Emissions from ventilation or work process equipment should be checked to

equipment will be necessary to reduce emissions to acceptable levels.

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.

welding, burning and grinding operations, if applicable exposure

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

	Titanium	
	Vanadium	

SECTION 3.

INHALATION

INGESTION

IRON OXIDE

CHROMIUM

SILICON

SECTION 4.

EYES

SKIN

INHALATION

INGESTION

SPECIAL EXPOSURE HAZARDS

SPECIAL PROTECTIVE

STORAGE REQUIREMENTS

RESPIRATORY PROTECTION

SECTION 8.

EYE PROTECTION

TECHNICAL MEASURES

SECTION 9.

PHYSICAL STATE

SECTION 10.

SECTION 12.

SECTION 13.

METHODS OF DISPOSAL

GENERAL INFORMATION

SECTION 14.

CATEGORIZATION

SECTION 16.

POSSIBILITY OF HAZARDOUS

FINISH

STABILITY

PACKAGING MATERIAL RECOMMENDED

EYE CONTACT SKIN CONTACT

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	
		Steel production sheet, coil do not pose a significant health hazardous. However
		when subjected to Welding, Burning, Sawing, Brazing & grinding etc. Potentially

to be acutely toxic via ingestion.

associated with the following conditions.

EFFECT OF LONG-TERM (CHRONIC) EXPOSURE

EFFECT OF SHORT TERM (ACUTE) EXPOSURE

results in development of a benign pneumoconiosis, called siderosis, which is observable as an x-ray change.

Parkinson's disease.

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

very low toxicity. The hexavalent form is very toxic. Nickel is a common contact allergen & causes some sensitization, allergic contact NICKEL dermatitis (ACD). Fumes are respiratory irritants and may cause respiratory disease, skin contact can also cause an allergic skin rash, nickel and its

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

deformities, erythema, and edema of the joint areas.

for several minutes and seek Prompt medical attention.

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

FIRST AIDS MEASURES

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

HAZARDOUS COMBUSTION Not applicable for solid form alloy. Toxic metal and metallic Oxide. **PRODUCTS** Fumes may be evolved from fires involving finely divided alloy

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.

HANDELING & STORAGE 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

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

should be worn when welding or burning. SKIN PROTECTION Skin covering working clothes, wear dust proof overalls if large quantity of

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**

PHYSICAL & CHEMICAL PROPERTIES

REACTIVITY AND STABILITY

ECHOLOGICAL INFORMATION

DISPOSAL CONSIDERATIONS

TRANSPORT INFORMATION

Solid

No.4 or B.A

MELTING TEMPERATURE 1375-1400 °C DENSITY (G/CM3) 7.750 HARDNESS (HV5) 205

The product is stable.

REACTIONS SECTION 11. TOXICOLOGICAL INFORMATION According to our experience and information the product has no harmful effects on health if properly handled.

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.

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

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

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

Steel scrap should be recycled wherever possible

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

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 (MOSAIC)



PRODUCT DESCRIPTION

MATERIAL IDENTIFICATION

SECTION 1.

SECTION 2.

SECTION 3.

EMERGENCY OVERVIEW

ROUTE OF EXPOSURE

INHALATION EYE CONTACT

SKIN CONTACT

IRON OXIDE

CHROMIUM

SKIN

INHALATION

INGESTION

SUITABLE

PRODUCTS

SPECIAL PROTECTIVE

HANDLING PRECAUTIONS

STORAGE REQUIREMENTS

EYE PROTECTION

SKIN PROTECTION

HYGIENE MEASURES

PHYSICAL STATE

DENSITY (G/CM3)

SECTION 10.

STABILITY

REACTIONS

SECTION 12.

SECTION 13.

SECTION 15.

METHODS OF DISPOSAL

GENERAL INFORMATION

SARA TITLE III SECTION 302

EXTREMELY HAZARDOUS

MELTING TEMPERATURE

POSSIBILITY OF HAZARDOUS

PACKAGING MATERIAL RECOMMENDED

EXTINGUISHER MEDIA

SPECIAL EXPOSURE HAZARDS

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 304

MANUFACTURER'S NAME

SAKSHI INNOVATIONS PRIVATE LIMITED

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

COMPOSITION / INFORMATION ON INGREDIENTS

CAS No.

% Weight

0.065

0.330

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

Chronic inhalation of excessive concentrations of iron oxide fumes or dust may

results in development of a benign pneumoconiosis, called siderosis, which is

increase the incidence of bronchitis pneumonia and lung damage and may

disease, skin contact can also cause an allergic skin rash, nickel and its

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

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

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

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

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

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

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

The alleged health hazards associated with exposure to chromium are dependent

Carbon 7440-44-0 Silicon 7440-21-3

Chemical Composition

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 PRIMARY ROUTE OF EXPOSURE Inhalation of fumes from Welding or Burning, Dust from Grinding or Cutting.

EFFECT OF SHORT TERM (ACUTE) EXPOSURE

EFFECT OF LONG-TERM (CHRONIC) EXPOSURE

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.

Eye, Skin contact or Inhalation

Molten material may cause thermal burns.

Fumes & dust may be irritating to respiratory system.

Dust or particles may cause mechanical irritation.

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.

Chronic inhalation of high concentrations of metallic fumes and dusts are associated with the following conditions.

observable as an x-ray change. **MANGANESE** Chronic exposure to high concentrations of manganese fumes and dusts 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 dermatitis (ACD). Fumes are respiratory irritants and may cause respiratory

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 causing fibrosis in lung tissue. However, slight pulmonary lesions have been reported in Laboratory animals from intratracheal ingestion of silicon dust.

SECTION 4. FIRST AIDS MEASURES If dust/fumes get in eyes, immediately flush with large amounts of running water **EYES** for several minutes and seek Prompt medical attention.

TLV. Silicon may cause chronic respiratory effects.

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.**

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

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

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

Fumes may be evolved from fires involving finely divided alloy

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

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

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

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

equipment will be necessary to reduce emissions to acceptable levels.

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

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.

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

glasses or goggles should be worn **HANDELING & STORAGE** SECTION 7.

Store in a dry place.

Use original container.

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

dust is generated.

should be worn when welding or burning.

ENVIRONMENTAL EXPOSURE CONTROLS TECHNICAL MEASURES Emissions from ventilation or work process equipment should be checked to

Solid

7.750

1400-1450 °C

HARDNESS (HV5) 220 **FINISH** No.4 or B.A

on health if properly handled.

The product is stable.

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

REACTIVITY AND STABILITY

SECTION 9. PHYSICAL & CHEMICAL PROPERTIES

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.

ECHOLOGICAL INFORMATION

DISPOSAL CONSIDERATIONS Steel scrap should be recycled wherever possible

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

TRANSPORT INFORMATION SECTION 14.

REGULATORY INFORMATION

No components are listed as extremely hazardous substances

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

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.

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 (MOSAIC)



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)

COMPOSITION / INFORMATION ON INGREDIENTS SECTION 2.

CAS No.

7440-44-0

% Weight

0.072

16.33

82.21

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

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

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

disease, skin contact can also cause an allergic skin rash, nickel and its

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

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

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

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

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

Carbon Chromium 7440-47-3 Iron 7439-89-6

Chemical Composition

■ 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 7440-33-1 0.0069 ■ Titanium 7440-32-6 0.0039 ■ Vanadium 7440-62-2 0.031 ■ Arsenic 7440-38-2 0.0021 ■ Nitrogen 7727-37-9 0.028				
■ 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		Manganese	<i>7</i> 439-96-5	0.616
■ 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		Phosphorus	7723-14-0	0.033
■ 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		Silicon	7440-21-3	0.315
■ 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		■ Sulphur	7704-34-9	0.0066
■ 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		■ Nickel	7440-02-0	0.171
■ 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		■ Molybdenum	7439-98-7	0.020
■ 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		Aluminium	7429-90-5	0.036
■ 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		■ Cobalt	7440-48-4	0.031
■ 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		■ Copper	<i>7</i> 440-50-8	0.082
■ Vanadium 7440-62-2 0.031 ■ Tin 7440-31-5 0.0055 ■ Arsenic 7440-38-2 0.0021 ■ Nitrogen 7727-37-9 0.028		■ Niobium	7440-03-1	0.0069
■ Tin 7440-31-5 0.0055 ■ Arsenic 7440-38-2 0.0021 ■ Nitrogen 7727-37-9 0.028		■ Titanium	7440-32-6	0.0039
■ Arsenic 7440-38-2 0.0021 ■ Nitrogen 7727-37-9 0.028		■ Vanadium	7440-62-2	0.031
■ Nitrogen 7727-37-9 0.028		■ Tin	7440-31-5	0.0055
		■ Arsenic	7440-38-2	0.0021
SECTION 3. HAZARDS IDENTIFICATION		■ Nitrogen	7727-37-9	0.028
SECTION 3. HAZARDS IDENTIFICATION				
	SECTION 3.	HAZARDS IDENTIFICATION		

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

EMERGENCY OVERVIEW

FLAMMABILITY

INHALATION

INGESTION

IRON OXIDE

CHROMIUM

SECTION 4.

EYES

SKIN

INHALATION

INGESTION

SUITABLE

PRODUCTS

SPECIAL PROTECTIVE

HANDLING PRECAUTIONS

STORAGE REQUIREMENTS

RESPIRATORY PROTECTION

SKIN PROTECTION

HYGIENE MEASURES

TECHNICAL MEASURES

PHYSICAL STATE

DENSITY (G/CM3)

HARDNESS (HV5)

FINISH

STABILITY

REACTIONS

SECTION 12.

SECTION 13.

SECTION 14.

SECTION 15.

SECTION 16.

METHODS OF DISPOSAL

GENERAL INFORMATION

MELTING TEMPERATURE

POSSIBILITY OF HAZARDOUS

PACKAGING MATERIAL RECOMMENDED

ENVIRONMENTAL EXPOSURE CONTROLS

EXTINGUISHER MEDIA

SPECIAL EXPOSURE HAZARDS

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.

Not Applicable

EYE CONTACT Dust or particles may cause mechanical irritation. SKIN CONTACT Dust or particles may cause irritation due to abrasion.

to be acutely toxic via ingestion. EFFECT OF LONG-TERM (CHRONIC) EXPOSURE Chronic inhalation of high concentrations of metallic fumes and dusts are

observable as an x-ray change.

associated with the following conditions.

Molten material may cause thermal burns.

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. The alleged health hazards associated with exposure to chromium are dependent

Fumes & dust may be irritating to respiratory system.

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

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 causing fibrosis in lung tissue. However, slight pulmonary lesions have been reported in Laboratory animals from intratracheal ingestion of silicon dust.

> 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. 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.

TLV. Silicon may cause chronic respiratory effects.

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

SECTION 5. FIRE FIGHTING MEASURES

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

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

Fumes may be evolved from fires involving finely divided alloy

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

equipment will be necessary to reduce emissions to acceptable levels.

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

operated in positive pressure mode. SECTION 6. ACCIDENTAL RELEASE MEASURES

SECTION 7. **HANDELING & STORAGE**

Store in a dry place.

Use original container.

limits are exceeded.

dust is generated.

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 8. **EXPOSURE CONTROLS/ PERSONAL PROTECTIONS**

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

PHYSICAL & CHEMICAL PROPERTIES SECTION 9.

REACTIVITY AND STABILITY SECTION 10.

The product is stable.

properly handled.

Solid

7.750

175

1425-1510 °C

No.4 or B.A

on health if properly handled.

ECHOLOGICAL INFORMATION

SECTION 11. TOXICOLOGICAL INFORMATION

DISPOSAL CONSIDERATIONS

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

Steel scrap should be recycled wherever possible

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.

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

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

REGULATORY INFORMATION

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

OTHER INFORMATION

EXTREMELY HAZARDOUS SUBSTANCES (EHSS):

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.

The information provided herein is Compiled by Sakshi to be accurate from sources believed to be reliable, but it