

SECTION 1: IDENTIFICATION**1.1. Product Identifier****Product Form:** Article**Product Name:** 304 Stainless Steel Products**Synonyms:** Stainless steel**1.2. Intended Use of the Product****Use of the Substance/Mixture:** No use is specified**1.3. Name, Address, and Telephone of the Responsible Party****Company**NEWTEX INDUSTRIES, INC.
8050 Victor-Mendon Road
Victor, New York 14564
(585) 924-9135**1.4. Emergency Telephone Number****Emergency Number** : 1-800-836-1001 (USA)**SECTION 2: HAZARDS IDENTIFICATION****2.1. Classification of the Substance or Mixture****GHS-US Classification**

Stainless steel is considered an article and not hazardous in its solid form. However, certain processes such as cutting, milling, grinding, melting and welding could result in some hazardous materials being emitted. The following classification information is for the hazardous elements which may be emitted during these processes.

2.2. Label Elements**GHS-US Labeling**

No labeling applicable

2.3. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-US)

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1. Substance**

Not applicable

3.2. Mixture

Name	Product Identifier	%
Iron	(CAS No) 7439-89-6	45 -90
Nickel	(CAS No) 7440-02-2	0 – 40
Chromium	(CAS No) 7440-47-3	10.5 – 30
Manganese	(CAS No) 7439-96-5	0 – 15
Molybdenum	(CAS No) 7429-98-7	0 – 5
Copper	(CAS No) 7440-50-8	0 – 5
Silicon	(CAS No) 7440-21-3	0 – 3
Aluminum	(CAS No) 7429-90-5	0 – 1
Cobalt	(CAS No) 7440-48-4	0 – 1
Titanium	(CAS No) 7440-32-6	0 – 1
Vanadium	(CAS No) 1314-62-1	Trace
Tungsten	(CAS No) 7440-33-7	Trace
Tantalum	(CAS No) 7440-25-7	Trace
Lead	(CAS No) 7439-92-1	Trace

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SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

First-aid Measures General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid Measures After Inhalation: Remove to fresh air. Check for clean airway, breathing and presence of pulse. If necessary administer CPR. Consult a physician immediately.

First-aid Measures After Skin Contact: Wash affected area with mild soap and water. Seek medical attention if skin irritation persists.

First-aid Measures After Eye Contact: Flush eyes with plenty of water for at least 15 minutes. Seek medical attention if eye irritation persists.

First-aid Measures After Ingestion: Dust may irritate mouth and gastrointestinal tract. If ingested, seek medical attention immediately.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

Stainless steel as a solid is not likely to present an acute or chronic health effects. However, during processing (cutting, milling, grinding, melting or welding) emitted byproducts may cause irritations, difficulty in breathing, coughing or wheezing. May cause allergic skin reactions.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

Notes to physician: may cause sensitization by skin contact or inhalation. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Non-flammable. Will support combustion. Not applicable for solid product. Use extinguishers appropriate for surrounding materials. Do not use water on molten metal. A fire involving finely divided alloy should be treated as Class D combustible metal fire.

Unsuitable Extinguishing Media: Do not use water on molten metal.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not flammable.

Explosion Hazard: Solid formed alloy does not constitute a fire or explosion hazard. However, finely divided suspended particulates may present a fire and explosion hazard in the presence of an ignition source.

5.3. Advice for Firefighters

Precautionary Measures Fire: For solid formed alloy, as appropriate for surrounding fire. Firefighters should wear self-contained NIOSH-approved breathing apparatus and full protective clothing.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Not applicable for solid formed alloy. Toxic metal and metallic oxide fumes may be evolved from fires involving finely divided alloy.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Not applicable to stainless steel in solid state. Avoid dust formation. Ensure adequate ventilation. Clean-up personnel should be protected against inhalation and eye and skin contact.

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE). Avoid contact with skin and eyes.

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

6.2. Environmental Precautions

Prevent the material from entering drains or watercourses.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Not applicable to stainless steel in solid state. For spills involving fine dusts, remove by vacuuming or wet sweeping methods to prevent spreading of dust. Avoid inhalation of dusts.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

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SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Precautions for Safe Handling: Not applicable to stainless steel in solid state. Operations with the potential for generating high concentrations of airborne particles should be evaluated and controlled as necessary. Practice good housekeeping. Avoid breathing metal fumes and/or dust.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Store away from sources of heat or ignition. Store away from acids. Storage area should be : cool, dry, well ventilated, out of direct sunlight, away from sources of ignition (heat, sparks, flames, pilot lights), and away from incompatible materials.

Incompatible Materials: Acids.

7.3. Specific End Use(s)

No use is specified

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

There are no exposure limits for stainless steel. The exposure limit for iron-containing fumes has been established at 5 mg/m³ with ACGIH's TWA. The individual complex compounds with the fume may have lower exposure limits than general fume.

COMPONENT	CAS NUMBER	OSHA PEL (mg/m ³)	TLV ACGIH (mg/m ³)
Iron	(CAS No) 7439-89-6	10 mg/m ³ Iron oxide - fume	5 mg/m ³ Iron oxide – dust & fume
Nickel	(CAS No) 7440-02-2	1 mg/m ³ , metal, soluble & insoluble compounds	1.5 mg/m ³ metal 0.1 mg/m ³ soluble compounds 0.2 mg/m ³ insoluble compounds
Chromium	(CAS No) 7440-47-3	1 mg/m ³ , metal & insoluble salt 0.5 mg/m ³ , Cr (III) 5µg/m ³ , Cr (VI) 2.5 µg/m ³ Action Level Cr (VI)	0.5 mg/m ³ metal and Cr (III) 0.05 mg/m ³ , Cr (VI) & water soluble compounds 0.01 mg/m ³ , Cr (VI) insoluble compounds
Manganese	(CAS No) 7439-96-5	5 mg/m ³ (ceiling)	0.2 mg/m ³
Molybdenum	(CAS No) 7429-98-7	5 mg/m ³ soluble compounds as MO 15 mg/m ³ total dust	5 mg/m ³ soluble compounds as MO 10 mg/m ³ insoluble compounds as MO
Copper	(CAS No) 7440-50-8	0.1 mg/m ³ fume 1.0 mg/m ³ dust & mist	0.2 mg/m ³ fume 1.0 mg/m ³ dust & mist
Silicon	(CAS No) 7440-21-3	15 mg/m ³ total dust 5 mg/m ³ respirable dust	10 mg/m ³ total dust
Aluminum	(CAS No) 7429-90-5	15 g/m ³ metal & total dust 5 mg/m ³ respirable dust	1 mg/m ³ respirable dust 5 mg/m ³ welding fume
Cobalt	(CAS No) 7440-48-4	0.1 mg/m ³ metal, dust & fume	0.02 mg/m ³ metal, dust & fume
Vanadium	(CAS No) 1314-62-1	0.5 mg/m ³ (ceiling) vanadium pentoxide dust 0.1 mg/m ³ (ceiling) vanadium pentoxide fume	0.05 mg/m ³ vanadium pentoxide
Tungsten	(CAS No) 7440-33-7	15 mg/m ³ total dust 5 mg/m ³ respirable dust	1.0 mg/m ² , 3mg/m ³ STEL soluble 5.0 mg/m ³ , 10 mg/m ³ STEL insoluble
Tantalum	(CAS No) 7440-25-7	5 mg/m ³ metal & oxide dust 10 mg/m ³ STEL	5 mg/m ³ metal & oxide dust
Lead	(CAS No) 7439-92-1	0.05 mg/m ³	0.05 mg/m ³

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8.2. Exposure Controls

Appropriate Engineering Controls	: Local and/or general exhaust ventilation should be used to keep worker exposure below applicable exposure limits during welding, brazing, grinding, machining and other processes which may generate airborne contaminants.
Personal Protective Equipment	: Dependent upon process being performed on material each operation must be addressed for suitable equipment.
Hand Protection	: Suitable for protection against physical injury and skin contact during handling and processing.
Eye and Face Protection	: Safety glasses or goggles should be worn when there is probability of flying particles or elevated levels of dust or fume.
Skin and Body Protection	: Wear suitable protective clothing.
Respiratory Protection	: If exposure limits are exceeded or irritation is experienced, approved NIOSH respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.
Other Information	: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	: Solid
Appearance	: Solid silver-grey metallix
Odor	: No significant odor
Odor Threshold	: No data available
pH	: No data available
Evaporation Rate	: No data available
Melting Point	: 2500 - 2800 °F (1371 - 1538 °C)
Freezing Point	: No data available
Boiling Point	: No data available
Flash Point	: No data available
Auto-ignition Temperature	: No data available
Decomposition Temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor Pressure	: No data available
Relative Vapor Density at 20°C	: No data available
Relative Density	: No data available
Specific Gravity	: 7.65 – 7.94
Solubility	: Insoluble
Partition Coefficient: N-Octanol/Water	: No data available
Viscosity	: No data available

9.2. Other Information No additional information available

SECTION 10: STABILITY AND REACTIVITY

- 10.1. Reactivity:** Not determined for product in solid form.
- 10.2. Chemical Stability:** Stable under normal conditions of transport, storage and use for solid formed product.
- 10.3. Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.
- 10.4. Conditions to Avoid:** Contact with mineral acids will release flammable hydrogen gas. Dust formation.
- 10.5. Incompatible Materials:** Oxidizers, reacts with strong acids to form explosive hydrogen gas.
- 10.6. Hazardous Decomposition Products:** During certain operations such as welding, burning, melting or hot rolling, metal fumes may be generated. Hexavalent chromium which is a suspect carcinogen may result from pickling stainless.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects

Acute Toxicity: Not classified

Skin Corrosion/Irritation: Not classified

Serious Eye Damage/Irritation: Not classified

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Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Hexavalent chromium	
IARC group	1
Metallic chromium	
IARC group	3
Nickel	
IARC group	2B
Cobalt	
IARC group	2B

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Dust may be harmful or cause irritation.

Symptoms/Injuries After Skin Contact: Prolonged exposure may cause skin irritation.

Symptoms/Injuries After Eye Contact: May cause slight irritation to eyes.

Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects.

Chronic Symptoms: Chronic exposure to ingredients contained in dust/fume from processing may cause adverse effects to the respiratory tract.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General : No data available in the stainless steel in its natural solid state. However, individual components of the material have been found to be toxic to the environment.

12.2. Persistence and Degradability

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Persistence and Degradability	Not established.

12.3. Bioaccumulative Potential

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Bioaccumulative Potential	Not established.

12.4. Mobility in Soil No data available for stainless steel in its natural solid state. Individual metal dusts may migrate into soil and groundwater and be absorbed by plates.

12.5. Other Adverse Effects

Other Information : Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste Treatment Methods

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, and international regulations.

Ecology - Waste Materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. In Accordance with DOT Not regulated for transport

14.2. In Accordance with IMDG Not regulated for transport

14.3. In Accordance with IATA Consult current IATA Regulations prior to shipping by air.

SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

The components for this material are listed on the Toxic Substances Control Act Inventory.

15.2. US State Regulations

This product contains the following materials which the State of California has found to cause cancer, birth defects or other reproductive harm: chromium (VI), nickel, cobalt, arsenic, cadmium, and lead.

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SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest Revision : 6/12/2018

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200

The information herein is given in good faith, but no warranty, expressed or implied is made and we assume no liability from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.

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