SAFETY DATA SHEET

Stainless Steel Wire Products | Types 304 and 316 | ASTM A580/A580M | OSHA HCS 16-section format

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product name	Stainless Steel Wire Products - Types 304 and 316
Other identifiers	Austenitic stainless steel wire; UNS S30400 and S31600; ASTM A580/A580M
SDS number	3GEN-SDS-SSWIRE-001
Recommended use	Joint reinforcement, veneer ties, pintles, and other masonry accessories manufactured by 3GEN Masonry Products, Inc. from Type 304 or Type 316 stainless steel wire.
Uses advised against	Does not cover Types 304L or 316L, stainless sheet, plate or bar, coated carbon steel, or other stainless grades unless separately identified.
Manufacturer / supplier	3GEN Masonry Products, Inc. 8620 Spruiell Street, Leeds, Alabama 35094 USA
Telephone	Toll-free 1-800-556-5785 | www.3genmp.com
Emergency (24-hour)	CHEMTREC 1-800-424-9300 (US/Canada) | +1-703-527-3887 (international)
Prepared / revised	2 September 2026 | Version 1.0

SECTION 2 - HAZARDS IDENTIFICATION

GHS classification (29 CFR 1910.1200): The finished stainless steel wire product as supplied is not classified as hazardous. Cutting, grinding, welding, brazing, melting, or other processing may generate hazardous dust or fume.

Signal word	None for the finished solid product as supplied.
Hazard statements	None required for the finished solid product as supplied.
Pictograms	None required for the finished solid product as supplied.
Precautionary statements	Avoid breathing dust and fume. Use local exhaust and appropriate eye, skin, and respiratory protection during processing.
Other hazards	Processing may generate chromium-, nickel-, manganese-, molybdenum-, and iron-containing dust or fume. Welding may generate hexavalent chromium and other hazardous compounds. Nickel-containing dust may cause allergic skin or respiratory reactions. Fine metal dust may be combustible. Sharp edges, spring-back, and hot metal can cause injury.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Nominal composition limits for Types 304 and 316 stainless steel wire. Actual heat chemistry is stated on the applicable mill test report.

Ingredient	CAS No.	Type 304 wt. %	Type 316 wt. %
Iron	7439-89-6	Balance	Balance
Chromium	7440-47-3	18.0-20.0	16.0-18.0
Nickel	7440-02-0	8.0-10.5	10.0-14.0
Molybdenum	7439-98-7	-	2.0-3.0
Manganese	7439-96-5	2.0 max.	2.0 max.
Silicon	7440-21-3	1.0 max.	1.0 max.
Carbon	7440-44-0	0.08 max.	0.08 max.
Phosphorus	7723-14-0	0.045 max.	0.045 max.
Sulfur	7704-34-9	0.030 max.	0.030 max.
Nitrogen	7727-37-9	0.10 max.	0.10 max.

SECTION 4 - FIRST-AID MEASURES

Inhalation. Move to fresh air. Keep comfortable for breathing. Seek medical attention if symptoms develop or persist. If breathing is difficult, trained personnel may administer oxygen.

Skin. Wash dust from skin with soap and water. Remove contaminated clothing. Obtain appropriate first aid for cuts. Cool thermal burns with clean running water; do not remove solidified metal. Seek medical attention.

Eyes. Flush cautiously with water for at least 15 minutes. Remove contact lenses if easy to do. Embedded metal particles require prompt professional removal. Obtain immediate care for hot-metal injury.

Ingestion. Not an expected route. Rinse mouth; do not induce vomiting. Seek medical advice if symptoms occur.

Most important symptoms. Dust or fume may cause irritation, coughing, wheezing, breathing difficulty, or allergic reaction. Effects depend on the processing conditions and fume composition. Treat symptomatically.

SECTION 5 - FIRE-FIGHTING MEASURES

Suitable media	Use media appropriate for the surrounding fire. For burning metal fines, use dry sand or an agent suitable for metal fires.
Unsuitable media	Do not apply water to molten metal. Avoid methods that disperse burning dust.
Specific hazards	Solid stainless steel is not combustible under ordinary conditions. Fine metal dust may burn or explode when dispersed in air. High heat may produce hazardous metal-oxide fumes.
Protective equipment	Wear full protective clothing and positive-pressure self-contained breathing apparatus when smoke, dust, or fumes are present.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions. Use suitable gloves and safe material-handling practices. Avoid breathing dust or fume. Keep fines away from ignition sources.

Clean-up. Collect solid product mechanically for reuse or recycling. Vacuum fines with equipment suitable for combustible metal dust or sweep carefully without raising dust. Do not use compressed air.

Environmental precautions. Prevent metal-bearing fines, sludge, and process water from entering drains, soil, or surface water.

SECTION 7 - HANDLING AND STORAGE

Safe handling. Beware of sharp wire ends, spring-back, stored energy, burrs, and pinch points. Use mechanical aids for heavy bundles. Provide local exhaust for cutting, grinding, welding, brazing, or heating. Avoid contaminating stainless surfaces with carbon-steel particles. Wash hands before eating, drinking, or smoking.

Storage. Store dry, stable, and secured against rolling, shifting, or collapse. Keep away from strong acids and strong oxidizers. Protect from chloride-containing chemicals and cross-contamination where corrosion performance is important.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Limits apply to airborne contaminants generated during processing, not to the intact finished article.

Substance	OSHA PEL	NIOSH REL	Form / note
Chromium metal / insoluble salts	1 mg/m3	0.5 mg/m3	As Cr; excludes Cr(VI)
Hexavalent chromium	5 micrograms/m3	0.2 micrograms/m3	May form during welding
Nickel metal	1 mg/m3	0.015 mg/m3	Dust/fume, as Ni
Manganese compounds	5 mg/m3 ceiling	1 mg/m3 TWA; 3 mg/m3 STEL	Dust/fume, as Mn
Iron oxide	10 mg/m3	5 mg/m3	Fume, as Fe
Molybdenum compounds	5 mg/m3 soluble	5 mg/m3	Compound/form dependent

Engineering controls. Use local exhaust at the source and maintain airborne concentrations below applicable limits. Welding stainless steel requires evaluation for hexavalent chromium under 29 CFR 1910.1026.

Respiratory protection. If controls are insufficient, use a NIOSH-approved respirator selected under an OSHA-compliant respiratory-protection program.

Eye / skin protection. Wear safety glasses with side shields and cut-resistant gloves. Use goggles or a face shield for flying particles and suitable welding protection for hot work. Prevent prolonged skin contact with dust.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance / form	Solid metallic wire, welded wire assemblies, ties, pintles, or related wire-formed hardware
Color	Silver-gray metallic
Odor / threshold	Odorless / not applicable
pH	Not applicable
Melting range	Approximately 1,370-1,450 C (2,498-2,642 F), grade-dependent
Boiling point	Not applicable to the finished alloy
Flash point / flammability	Not applicable to solid product; fine metal dust may be combustible
Relative density	Approximately 7.9-8.0
Solubility in water	Insoluble
Vapor pressure / viscosity	Not applicable

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Not reactive under recommended handling and storage conditions.
Chemical stability	Stable as supplied.
Hazardous reactions	Strong acids may attack the metal and release flammable hydrogen. Fine dust may present a combustion or explosion hazard.
Conditions to avoid	Uncontrolled dust generation or accumulation; contact of molten metal with water; incompatible chemicals.
Incompatible materials	Strong mineral acids, strong oxidizers, and halogen-containing chemicals.
Hazardous decomposition	Chromium-, nickel-, manganese-, molybdenum-, and iron-containing fumes or oxides may be generated during welding, thermal cutting, melting, or fire. Hexavalent chromium may form during hot work.

SECTION 11 - TOXICOLOGICAL INFORMATION

Likely routes. Processing may create dust or fume that can be inhaled or contact the eyes and skin. The intact article is not an inhalation hazard.

Acute effects. Dust may mechanically irritate the eyes, skin, nose, and throat. Metal fume may cause respiratory irritation and flu-like symptoms. Hot material causes thermal burns.

Nickel. Nickel-containing dust or fume may cause allergic skin sensitization and occupational asthma in susceptible persons. Excessive chronic inhalation may damage the respiratory system. Metallic nickel is classified by IARC as possibly carcinogenic to humans (Group 2B).

Chromium. Chromium metal in the alloy is not hexavalent chromium. Welding or other high-temperature processes can generate hexavalent chromium compounds, which can cause severe respiratory and skin effects and are carcinogenic to humans.

Manganese / iron / molybdenum. Chronic excessive manganese exposure may affect the central nervous system. Repeated excessive iron-oxide exposure may cause benign siderosis. Some molybdenum compounds may irritate the eyes and respiratory tract.

Welding fumes. IARC classifies welding fumes as carcinogenic to humans (Group 1). Fume composition depends on the grade, process, consumables, surface condition, and contaminants.

Medical conditions aggravated. Persons with respiratory or skin disorders may be more susceptible to excessive dust or fume exposure.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	The intact solid article presents low immediate aquatic hazard. Metal ions released by corrosion or processing may be harmful to aquatic organisms.
Persistence / degradability	Metals are persistent and do not biodegrade.
Bioaccumulative potential	Varies by metal species and environmental conditions.
Mobility in soil	Low for massive metal; greater for soluble compounds.
Other adverse effects	Do not discharge metal-bearing dust, sludge, pickling solution, or process wastewater without treatment.

SECTION 13 - DISPOSAL CONSIDERATIONS

Recycle as stainless-steel scrap whenever practicable. Dispose of product and processing wastes under applicable federal, state, and local requirements. Dust, sludge, spent pickling solution, or contaminated waste must be characterized by the generator before disposal.

SECTION 14 - TRANSPORT INFORMATION

DOT / ADR / IATA / IMDG	Not regulated as a hazardous material or dangerous good in finished solid form.
UN number / shipping name	Not applicable
Hazard class / packing group	Not applicable
Marine pollutant	No, as a finished solid article
Special precautions	Secure coils, bundles, and fabricated products against shifting or release during transport.

SECTION 15 - REGULATORY INFORMATION

TSCA. The constituent elements are listed on, or otherwise compliant with, U.S. TSCA inventory requirements.

EPCRA / SARA Title III. Chromium, nickel, and manganese compounds may be subject to Section 313 reporting when applicable thresholds and reporting criteria are met.

California Proposition 65. This product contains nickel, a chemical known to the State of California to cause cancer. Welding or other high-temperature processing may generate hexavalent chromium compounds and other listed substances. Exposure and warning obligations depend on actual conditions of use.

OSHA specifically regulated substances. Hot work on stainless steel may generate hexavalent chromium subject to 29 CFR 1910.1026. Welding operations must be evaluated for the applicable process hazards.

OSHA article status. This SDS addresses foreseeable processing hazards. Applicability of the article exemption depends on use and whether hazardous chemicals are released under normal conditions.

HMIS	Health 1* | Flammability 0 | Physical Hazard 0 (*dust/fume processing hazard)
NFPA	Health 1 | Flammability 0 | Instability 0

SECTION 16 - OTHER INFORMATION

This SDS covers 3GEN products manufactured from Type 304 (UNS S30400) or Type 316 (UNS S31600) stainless steel wire conforming to ASTM A580/A580M, including joint reinforcement, veneer ties, pintles, and other wire-formed masonry accessories.

It does not cover Types 304L or 316L, other stainless grades, or products manufactured from stainless sheet, plate, or bar. Certified chemistry for a particular heat is stated on the mill test report.

The information is believed accurate as of the revision date and is provided as guidance. Processing and use conditions are outside 3GEN Masonry Products, Inc.'s control. Users must evaluate their operations, maintain appropriate controls and PPE, and comply with applicable requirements.

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