SAFETY DATA SHEET

Mill-Galvanized Carbon Steel Products | ASTM A641/A641M Wire & ASTM A653/A653M Sheet | OSHA HCS 16-section format

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product name	Mill-Galvanized Carbon Steel Products
Other identifiers	Zinc-coated C1008 steel wire and galvanized carbon steel sheet; joint reinforcement and fabricated sheet-steel masonry accessories
SDS number	3GEN-SDS-MG-001
Recommended use	Masonry joint reinforcement manufactured from mill-galvanized C1008 steel wire, including ladder-type and truss-type configurations, and masonry accessories fabricated from mill-galvanized carbon steel sheet.
Uses advised against	Does not cover uncoated wire rod or sheet steel, hot-dip-galvanized-after-fabrication products, stainless steel, aluminum, brass, or other metals.
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 galvanized steel product as supplied is not classified as hazardous. Processing operations that generate airborne dust or fume require hazard controls.

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	Use ventilation and appropriate PPE when cutting, grinding, welding, heating, or otherwise processing the product.
Other hazards	Heating or welding may generate zinc oxide fume, which can cause metal fume fever, and iron oxide or manganese-containing fume. Fine metal dust may form combustible concentrations in air. Strong acids may release flammable hydrogen. Sharp edges, heavy components, and hot metal can cause injury.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Carbon steel wire with a continuous metallic zinc coating conforming to ASTM A641/A641M and galvanized carbon steel sheet conforming to ASTM A653/A653M. Steel chemistry and coating percentage vary by wire diameter, sheet thickness, coating designation, and product configuration.

Ingredient	CAS No.	Typical / specified wt. %	Notes
Iron	7439-89-6	Balance (typically >90)	Carbon-steel substrate
Zinc	7440-66-6	Typically <10	Continuous mill-applied coating
Manganese	7439-96-5	Typically <2	Steel constituent
Carbon	7440-44-0	Typically <1	Steel constituent
Other steel constituents	Mixture	Trace / grade-dependent	Per material certification

SECTION 4 - FIRST-AID MEASURES

Inhalation. Move to fresh air. Keep at rest. Seek medical attention if symptoms develop or persist. Metal fume fever symptoms may be delayed several hours.

Skin. Wash dust from skin with soap and water. Obtain appropriate first aid for cuts. Cool thermal burns with clean running water; do not remove solidified metal from skin. Obtain 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 material is swallowed or symptoms occur.

Most important symptoms. Dust or fume may cause irritation, coughing, metallic taste, headache, fever, chills, muscle aches, or nausea. Treat symptomatically.

SECTION 5 - FIRE-FIGHTING MEASURES

Suitable media	Use media suitable for the surrounding fire. For burning metal fines use dry sand or an extinguishing agent suitable for metal fires.
Unsuitable media	Do not apply water to molten metal. Avoid methods that disperse burning dust.
Specific hazards	The finished product is not combustible under ordinary conditions. Fine dust may burn or explode when dispersed in air. Fire or high heat may produce zinc oxide and other 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 handling practices. Avoid breathing dust or fume. Keep metal fines away from ignition sources.

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

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

SECTION 7 - HANDLING AND STORAGE

Safe handling. Beware of sharp wire ends and sheet-metal edges, spring-back, pinch points, and stored energy in bundles or coils. Use suitable gloves and mechanical assistance for large or awkward sheet products. Avoid damaging the zinc coating. Provide local exhaust for cutting, grinding, welding, or heating.

Storage. Store dry, stable, and secured against rolling, shifting, or collapse. Protect the galvanized surface from prolonged wet storage and corrosive chemicals. Keep away from strong acids and strong oxidizers.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

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

Substance	OSHA PEL	NIOSH REL	Form / note
Zinc oxide	5 mg/m3	5 mg/m3 TWA; 10 mg/m3 STEL	Fume
Iron oxide	10 mg/m3	5 mg/m3	Fume, as Fe
Manganese compounds	5 mg/m3 ceiling	1 mg/m3 TWA; 3 mg/m3 STEL	Fume/dust, as Mn
Particulates not otherwise regulated	15 mg/m3 total; 5 mg/m3 respirable	-	Dust

Engineering controls. Use local exhaust at the source of dust or fume and maintain airborne concentrations below applicable limits. Prevent dust accumulation.

Respiratory protection. When 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 welding protection for hot work. Wear heat-resistant PPE when handling hot material.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance / form	Welded ladder-type or truss-type steel-wire assemblies and formed sheet-steel masonry products with a continuous mill-applied zinc coating
Color	Metallic gray to silver; zinc surface may weather to dull gray
Odor / threshold	Odorless / not applicable
pH	Not applicable
Melting point	Steel substrate approximately 1,425-1,540 C; zinc coating approximately 420 C (788 F)
Boiling point	Zinc approximately 907 C (1,665 F); not applicable to finished article as a whole
Flash point / flammability	Not applicable to finished solid product; fine metal dust may be combustible
Relative density	Steel approximately 7.8; zinc approximately 7.1
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	Acids and strong alkalis may attack zinc and release flammable hydrogen gas. Fine metal dust may present a combustion or explosion hazard.
Conditions to avoid	Uncontrolled dust accumulation; contact of molten metal with water; incompatible chemicals.
Incompatible materials	Strong acids, strong alkalis, and strong oxidizing agents.
Hazardous decomposition	Zinc oxide, iron oxide, manganese-containing fume, and other metal oxides may be generated by welding, thermal cutting, overheating, or fire.

SECTION 11 - TOXICOLOGICAL INFORMATION

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

Zinc oxide fume. Excessive inhalation can cause metal fume fever, with delayed flu-like symptoms including metallic taste, cough, fever, chills, headache, muscle aches, and nausea. Symptoms usually resolve after exposure ends, but medical evaluation is appropriate.

Iron / manganese. Repeated excessive iron-oxide exposure may cause benign siderosis. Prolonged excessive manganese-fume exposure may affect the central nervous system.

Carcinogenicity. The finished galvanized carbon-steel product is not classified in this SDS as carcinogenic based on its specified composition. IARC classifies welding fumes as carcinogenic to humans (Group 1); fume hazards depend on the process, consumables, surface condition, and contaminants.

Medical conditions aggravated. Persons with asthma or other chronic respiratory disorders may be more susceptible to excessive dust or fume. Persons with existing skin conditions may be more susceptible to irritation.

Other endpoints. The article has not been tested as a whole and is not classified here for acute toxicity, corrosion, serious eye damage, sensitization, mutagenicity, reproductive toxicity, or aspiration hazard.

SECTION 12 - ECOLOGICAL INFORMATION	
Ecotoxicity	The finished article presents low immediate aquatic hazard. Zinc ions released through corrosion or acid attack can be toxic to aquatic organisms.
Persistence / degradability	Metals are persistent and do not biodegrade.
Bioaccumulative potential	Zinc is an essential element but may accumulate in organisms under some conditions.
Mobility in soil	Low for the intact article; greater for soluble zinc compounds.
Other adverse effects	Do not discharge zinc-bearing dust, sludge, or process wastewater without appropriate treatment.

SECTION 13 - DISPOSAL CONSIDERATIONS

Recycle as galvanized steel scrap whenever practicable. Dispose of product, dust, scale, sludge, and contaminated packaging under applicable federal, state, and local requirements. The waste generator must determine whether process waste is hazardous based on its composition and contaminants.

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 items against shifting or release. Keep dry as appropriate.

SECTION 15 - REGULATORY INFORMATION

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

EPCRA / SARA Title III. Zinc (fume or dust) and manganese compounds may be subject to Section 313 reporting when applicable thresholds and criteria are met.

CERCLA. Zinc is a listed hazardous substance with a reportable quantity; release reporting depends on the form, quantity, and circumstances.

California Proposition 65. The product is not intentionally formulated with a Proposition 65-listed constituent; however, commercial steel and galvanizing metal may contain incidental trace impurities. Applicable material certifications and actual exposure conditions must be evaluated before determining warning obligations.

OSHA. 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 mill-galvanized carbon steel products, including C1008 steel-wire joint reinforcement conforming to ASTM A641/A641M and masonry accessories fabricated from galvanized carbon steel sheet conforming to ASTM A653/A653M. It does not cover hot-dip-galvanized-after-fabrication products or other finishes.

Composition ranges are representative of the defined product category. The applicable mill test report, coating certificate, or galvanizer certification controls for a specific production lot. Exposure guidance reflects OSHA and NIOSH information available as of the revision date.

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 and comply with applicable safety, environmental, transportation, and legal requirements.

Prepared by	3GEN Masonry Products, Inc. - Product Technical / EHS
Revision date	2 September 2026
Replaces	New product-specific document; supersedes relevant coverage in the combined zinc-coatings SDS
Document control	3GEN-SDS-MG-001, Version 1.0
24-hour emergency	CHEMTREC 1-800-424-9300

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