



SAFETY DATA SHEET

BN Products-LLC, USA

Revision date 12-MAY-2021

Version 0

SECTION 1. IDENTIFICATION

1.1 PRODUCT IDENTIFIER

Product Name: Rebar Tie Wire Galvanized Foreign

Product code: BNT-40-WIRE

Category: Galvanized Wire

1.3a RECOMMENDED USE

For use with BNT-40, BNT-25, BNT-58, BNT-40X, BNT-25X, BNT-58X rebar tiers. For use as 21 Ga. wire to be used to tie two pieces of rebar together. To tie together other solid objects.

1.3b RESTRICTIONS ON USE: None Known

1.4 MANUFACTURER / DISTRIBUTOR

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3450 SABIN BROWN RD.
WICKENBURG, AZ 85390
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huayuan@huayuanwire.com

1.5 EMERGENCY PHONE NUMBER

**For Hazardous Materials [or Dangerous Goods] Incident
Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC
+1 703-741-5970 / 1-800-424-9300 CCN 826088**

SECTION 2. HAZARDS IDENTIFICATION

2.1 CLASSIFICATION:

This material is not classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

2.2 Label and Markings:**2.2.2 Signal Word** None required.**2.2.3 Hazard Statements**

Not required

Precautionary statement(s)

None required.

2.2.4 EMERGENCY OVERVIEW:**2.2.5 Other hazards which do not result in classification:**

Dust may irritate eyes and the respiratory system. Iron particles in the eye may leave a “rust ring” or brownish stain on the cornea. This product contains Manganese compounds. Chronic manganese exposures can lead to neurological problems such as apathy, drowsiness, weakness, spastic gait, paralysis, and other neurological problems resembling Parkinsonism. These symptoms can become progressive and permanent if not treated.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Material	Common name and synonyms	% by Wt.	CAS Number	Molecular Formula
Iron	Iron, Elemental; Iron Dust	90.0-99.0%	7439-89-6	Fe
Manganese	Manganese, Elemental	0.36%	7439-96-5	MnO ₂
Phosphorus	Phosphorus, Elemental	0.015%	7723-14-0	P
Carbon	Carbon, Elemental	0.060%	7440-44-0	C
Sulfur	Sulfur, Elemental	0.019%	7704-34-9	S
Zinc	Zinc, Elemental	2-5%	7440-66-6	Zn

SECTION 4. FIRST AID MEASURES

EYE CONTACT: Not normally required. However, if the article is damaged and/or material is released: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if needed.

SKIN CONTACT: Not normally required. However, if the article is damaged and/or material is released: Wash affected areas with soap and water. When symptoms persist or in all cases of doubt, seek medical advice.

INHALATION: Not normally required. However, if the article is damaged and/or material is released: Move to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Seek immediate medical attention/advice.

INGESTION: Not generally needed. However, if the article is damaged and/or material is released: Do not induce vomiting. Get medical advice/attention if you feel unwell.

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:

Dust may irritate eyes and the respiratory system. Symptoms may include stinging and tearing. Inhalation of fumes may result in metal fume fever, a flu-like illness Symptoms of metal fume fever may include fever, fatigue, vomiting, muscle aches and shortness of breath.

SECTION 5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:

Suitable extinguishing media
: Use media appropriate for surrounding material.

UNSUITABLE EXTINGUISHING MEDIA: Do not use water jet as extinguisher, as this will spread the fire.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS: Use positive pressure, self-contained breathing apparatus and full protective clothing.

Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:

Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Avoid inhalation of dust. Avoid inhalation of fumes from molten product.

Environmental precautions: Avoid discharge into drains, water courses or onto the ground.

Methods and material for containment and cleaning up.

Undamaged articles can usually be reclaimed. Wear appropriate protective equipment and clothing during clean-up. Sweep up or vacuum up spillage and collect in suitable container for disposal. For waste disposal, see Section 13. Avoid dust formation. Do not flush spill to drain.

Special spill response procedures:

If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8802).

US CERCLA Reportable quantity (RQ): None reportable.

SECTION 7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wear personal protective equipment. Wash hands after handling and before eating. Keep away from acids and other incompatibles. Keep away from extreme heat and direct flame.

STORAGE: Store in closed original container in a dry place. Store away from incompatible materials (see Section 10 of the SDS). Protect against physical damage.

INCOMPATIBLE MATERIALS: Acids; Strong oxidizing agents; Bases; Reducing agents.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:				
Chemical Name	ACGIH TLV		OSHA PEL	
	TWA	STEL	PEL	STEL
Iron	N/Av	N/Av	N/Av	N/Av
Zinc	N/Av	N/Av	N/Av	N/Av
Manganese	0.02 mg/m ³ (respirable); 0.1 Mg/m ³ (inhalable)	N/Av	5 mg/m ³ (fume) (Ceiling)	N/Av

ACGIH TLV: American Conference of Governmental Industrial Hygienists – Threshold Limit Value

OSHA PEL: Occupational Safety and Health Administration – Permissible Exposure Limits

NIOSH IDLH: Immediately Dangerous to Life or Health

VENTILATION: Not required under normal handling conditions. Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing.

RESPIRATORY PROTECTION: None required under normal handling conditions. If respiratory irritation occurs, wear a respirator suitable for protection against dust.

GLOVES: Wear gloves impervious to this material. Advice should be sought from glove suppliers.

EYE PROTECTION: Wear safety glasses with side shields to avoid small pieces of wire getting into your eyes. Provide an emergency eye wash fountain and quick drench shower in the immediate area.

OTHER PROTECTIVE EQUIPMENT: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- **APPEARANCE (PHYSICAL STATE, & COLOR):** Solid
- **ODOR:** Odorless
- **ODOR THRESHOLD:** Not applicable
- **PH:** Not applicable
- **MELTING POINT/FREEZING POINT:** 2498 °F (1370 °C) (Steel) 791.6 °F (422 °C) (Zinc Coating)
- **INITIAL BOILING POINT AND BOILING RANGE:** 5432 °F (3000 °C)(Steel) 1664.6 °F (907 °C) (Zinc Coating)
- **FLASH POINT:** Not flammable
- **EVAPORATION RATE:** Not flammable
- **FLAMMABILITY (SOLID, GAS):** Not applicable
- **UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:** Not applicable
- **VAPOR PRESSURE:** Not applicable
- **VAPOR DENSITY:** Not applicable
- **RELATIVE DENSITY:** 7.85
- **SOLUBILITY(IES):** insoluble
- **PARTITION COEFFICIENT: N-OCTANOL/WATER:** Not available
- **AUTO-IGNITION TEMPERATURE:** 1256 °F (680 °C)(Dust cloud)
- **DECOMPOSITION TEMPERATURE:** Not available
- **VISCOSITY:** Not available
- **VOLATILES (% BY WEIGHT):** Not available
- **VOLATILE ORGANIC COMPOUNDS (VOC'S):** None.
- **ABSOLUTE PRESSURE OF CONTAINER:** Not applicable
- **FLAME PROJECTION LENGTH:** Not available
- **OTHER PHYSICAL/CHEMICAL COMMENTS:** No additional information

SECTION 10. STABILITY AND REACTIVITY

REACTIVITY: The product is stable and non-reactive under normal conditions of use, storage, and transport. Contact with most acids will generate flammable hydrogen gas.

STABILITY:
 Unstable Stable

CONDITIONS TO AVOID:
 Acids, High Temperature

INCOMPATIBILITY: Acids: Strong oxidizing agents; Bases; Reducing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: None known, refer to hazardous combustion products in Section 5.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Contact with incompatible materials.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Routes of entry inhalation: Yes

Routes of entry skin & eye: Yes

Routes of entry Ingestion: Yes

Routes of exposure skin absorption: No

Potential Health Effects:

Signs and symptoms of short-term (acute) exposure

Sign and symptoms Inhalation:

Inhalation of dusts may cause respiratory irritation. Inhalation of fumes may result in metal fume fever, a flu-like illness. Symptoms of metal fume fever may include fever, fatigue, vomiting, muscle aches and shortness of breath.

Sign and symptoms ingestion:

Expected to be low ingestion hazard.

Sign and symptoms skin:

No adverse effects due to skin contact are expected. Prolonged skin contact may cause temporary irritation.

Sign and symptoms eyes:

Dust in the eyes will cause irritation. Iron particles in the eye may leave a "rust ring" or brownish stain on the cornea.

Potential Chronic Health Effects:

Frequent or prolonged contact may dry the skin, leading to discomfort and dermatitis.

This product has no known adverse effect on human health.

Product information:

Product does not present an acute toxicity hazard based on know or supplied information.

Mutagenicity:

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity:

No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

Reproductive effects & Teratogenicity:

This product is not expected to cause reproductive or developmental effects.

Sensitization to material:

Not expected to be a respiratory sensitizer. This product is not expected to cause skin sensitization.

Specific target organ effects:

Not classified as a specific target organ toxicity-single exposure. Not classified as specific target organ toxicity-repeated exposure.

Medical conditions aggravated by overexposure:

None known or reported by the manufacturer.

Synergistic materials: Not available.

Toxicological data:

See below for individual ingredient acute toxicity data. No data is available on the product itself.

Chemical name	LC50(4hr)		LD50	
	inh, rat		(Oral, rat)	(Rabbit, dermal)
Iron	N/Av		98600 mg/kg	N/Av
Zinc	>5.4 mb/L (dust)(No mortality)		> 2000 mg/kg (No mortality)	N/Av
Manganese	>5.14 mb/L (dust)(No mortality)		> 2000 mg/kg (No mortality)	N/Av

Other important toxicological hazards

None known or reported by the manufacturer.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity: The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Ecotoxicity data:

Ingredients	CAS No	Toxicity to Fish		
		LC50 / 96h	NOEC / 21 day	M Factor
Iron	7439-89-6	>10000 mg/L (Zebra fish)	N/Av	N/Av
Zinc	7440-66-6	N/Av	N/Av	N/Av
Manganese	7439-96-5	>3.6 mg/L (rainbow trout)	N/Av	N/Av

Ingredients	CAS No	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 day	M Factor
Iron	7439-89-6	>100 mg/L Water Flea	5.9 mg/L Water flea	N/Av
Zinc	7440-66-6	0.07 mg/L Water flea	0.12 mg/L/29-day Water flea	10
Manganese	7439-96-5	>1.6 mg/L Water flea	1.7 mg/L/8days Water flea	N/Av

Ingredients	CAS No	Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
Iron	7439-89-6	N/Av	N/Av	N/Av
Zinc	7440-66-6	0.15 mg/L/72hr (Green algae)	0.05 mg/L/72hr (Green algae)	1
Manganese	7439-96-5	4.5 mg/L/72hr (Green algae)	N/Av	N/Av

12.2 Persistence and degradability: No data is available on the degradability of this product.

Bioaccumulation potential: No data on the product itself.

Components	Partition coefficient n-octanol/water (log Kow)	Bioconcentration factor (BCF)
Iron (CAS 7439-89-6)	N/Av	N/Av
Zinc (CAS 7440-66-6)	N/Av	N/Av
Manganese (CAS 7439-96-5)	N/Av	N/Av

Mobility in soil: No data is available on the product itself.

Other adverse Environmental effect:

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13. DISPOSAL CONSIDERATIONS



Handling for Disposal: Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Methods of Disposal: Dispose in accordance with all applicable regulations.

RCRA: Under the RCRA, it is the responsibility of the waste generator to determine the proper waste identification and disposal method.

SECTION 14. TRANSPORT INFORMATION

Regulatory Information	UN Number	UN Proper shipping name	Transport hazard class(es)	Packing Group	Label
TDG	None	Not Regulated	Not Regulated	None	None
TDG Additional Information	None.				
49CFR/DOT	None	Not Regulated	Not Regulated	None	None
49CFR/DOT Additional Information	None.				
ICAO/IATA	None	Not Regulated	Not Regulated	None	None
ICAO/IATA Additional information	None.				

Special precautions for user: None known.

Environmental hazards: This product meets the criteria for an environmentally hazardous material according to the IMDG Code. See ECOLOGICAL INFORMATION, Section 12.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not Applicable.

SECTION 15. REGULATORY INFORMATION

Ingredients	CAS #	TSCA Inventory	CERCLA Reportable Quantity (RQ) (40 CFR 117.302):	SARA Title III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA Title III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	De minimus Concentration
Iron	7439-89-6	Yes	N/Ap	N/Av	No	N/Ap
Zinc	7440-66-6	Yes	1000 lbs. / 454 kg	None	Yes	1%
Manganese	7439-965	Yes	None	None	Yes	1%

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes: Not a hazard under normal conditions of use. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

US State Right to Know Laws:

The following chemicals are specifically listed by individual States:

Ingredients	CAS #	California Proposition 65			State "Right to Know" Lists				
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Iron	7439-89-6	No	N/Ap	Yes	No	No	No	No	No
Zinc	7440-66-6	No	N/Ap	Yes	Yes	No	Yes	Yes	Yes
Manganese	7439-965	No	N/Ap	Yes	Yes	Yes	Yes	Yes	Yes

Canadian Information:

Canadian WHMIS Classification: Refer to Section 2 for a WHMIS Classification for this product.

Canadian Environmental Protection Act (CEPA): All components of this product are on the Canadian DSL list.

SECTION 16. OTHER INFORMATION

SDS REVISION DATE: May 12, 2021

REASON FOR UPDATE: INITIAL CREATION

DISCLAIMER

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