

DESCRIPTION

FiberForce T1-60 is a cold-drawn steel wire fiber which meets the requirements of ASTM A820 Type I. FiberForce T1-60 was developed for use as temperature-shrinkage reinforcement and post-first crack toughness in concrete. FiberForce T1-60 has been manufactured with hooked ends to enhance interlock within the concrete mix.

HAZARDS IDENTIFICATION

Emergency Overview: This product does not require any hazard warning on the label under OSHA criteria.

GHS Classification: Not a hazardous substance or mixture according to the Globally Harmonized System (GHS).

Potential Health Effects

- Eye Contact - No significant health hazards identified. Particles may cause slight discomfort, similar to getting dust in eye.
- Skin Contact - No significant health hazards identified. Particles may cause slight discomfort similar to rubbing sand on skin.
- Inhalation - No significant irritation expected other than possible mechanical irritation. When heated, the vapors/fumes given off may cause respiratory tract irritation.
- Ingestion - No significant health hazards identified.
- HMIS Hazard ID - (Health: 0) (Flammability: 0) (Reactivity: 0)
- NFPA Hazard ID - (Health: 0) (Flammability: 0) (Reactivity: 0)

FIREFIGHTING MEASURES

- **Flashpoint** - Not applicable.
- **UEL** - Not determined.
- **LEL** - Not determined.
- **Autoignition Temperature** - Not determined.
- **Flammability Classification** - None.
- **Extinguishing Media** - Agents approved for Class A hazards (e.g., halogenated agents, foam, steam) or water fog.
- **Unusual Fire and Explosion Hazards** - None identified.
- **Fire Fighting Equipment** - Firefighters should wear full bunker gear, including a positive pressure self-contained breathing apparatus.
- **Hazardous Combustion Products** - Incomplete burning can produce carbon monoxide and/or carbon dioxide and other harmful products.

EXPOSURE GUIDELINES

	CAS #	T.L.V. (as fume) mg/m	P.E.L. (as fume) mg/m	Ld50/Lc50 (as fume) mg/m
Iron	7439-89-6	5.0	10.0	30g/kg (1d oral rat)
	7439-96-5	0.2	5.0	9g/kg (1d oral rat)
Nickel	7440-02-0	1.0	1.0	N/A
	7440-47-3	0.5	0.5	N/A

TOXICOLOGICAL INFORMATION

Acute Toxicity Data

- Eye Irritation - Testing not conducted.**
- Skin Irritation - Testing not conducted.**
- Dermal LD50 - Testing not conducted.**
- Oral LD50 - Testing not conducted.**
- Inhalation LD50 - Testing not conducted.**

**Other Toxicity Data

Specific toxicity tests have not been conducted. Hazard evaluation is based on similar product information, the ingredients, technical literature, and/or professional experience.

HANDLING AND STORAGE

- Handling - No special requirements.
- Storage - No special requirements.

FIRST AID MEASURES

- Eyes - Flush eyes with plenty of water. Seek medical attention if irritation persists.
- Skin - Wash exposed skin with soap and water. Seek medical attention if irritation develops.
- Inhalation - If adverse effects occur, remove to uncontaminated area.
- Ingestion - If a large amount is swallowed, seek medical attention.

ACCIDENTAL RELEASE MEASURES

Contain and remove by mechanical means.

PERSONAL PROTECTION

- Eyes - None required; however, if contact is likely, safety glasses with side shields are recommended.
- Skin - None required; however, use of protective gloves/clothing is a good industrial practice.
- Inhalation - None required; however, use of adequate ventilation is a good industrial practice.
- Specific Hygiene Measures - 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. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

STABILITY AND REACTIVITY

- Stability - Stable.
- Conditions to Avoid - None identified.
- Materials to Avoid - Contact with acids will release Hydrogen gas.
- Hazardous Decomposition Products - N/A.
- Hazardous Polymerization - Will not occur.

DISPOSAL CONSIDERATIONS

Ecological testing has not been conducted on this product.

ECOLOGICAL INFORMATION

Enclosed-controlled incineration is recommended unless directed by applicable ordinances.

TRANSPORTATION INFORMATION

- U.S. Department of Transportation - Not regulated for transport.
- SEA (IMDG) - Not determined.
- AIR (IATA) - Not determined.
- European Road/Rail (ADR/RID) - Not determined.
- Canadian Transport of Dangerous Goods - Not determined.

COMPOSITION / INGREDIENT INFORMATION

The below ingredient list identifies those components which meet the regulated reporting criteria. Concentrations represent a maximum for all grades in a category of steel products.

Component	CAS #	Range % By Weight
Iron	7439-89-6	>99
Manganese	7439-96-5	2.2
Nickel	7440-02-0	2.05
Chromium	7440-47-3	1.65

PHYSICAL AND CHEMICAL PROPERTIES

- Appearance - Fibers.
- Odor - None.
- PH - Not determined.
- Vapor Pressure - Not determined.
- Vapor Density - Not determined.
- Boiling Point - Not determined.
- Melting Point - Not determined .
- Solubility in Water - Negligible, below 1%
- Specific Gravity (Water=1) - 0.91

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