AnchorTech, LLC
16610 Se 34th Way
Vancouver, WA 98683
Phone: (360) 836 8217
Fax: (360) 326 3835
email: Ayecapnbob@aol.com
Web Site: www.AnchorTechLLC.com

Material Safety Data Sheet

Trade Name: Cast Iron **AnchorTech Name HTAC Alloy**

1. Element:	Symbol	% by Wt	Exposure Limits	
			OSHA PEL (mg/m3)	ACHIG-TLV (mg/m3)
Iron	(Fe)	Remainder	10 (fume)	
Carbon	(C)	2.5 to 4.3	15	10
Chromium	(Cr)	0.4 to 10	1	0.5
Copper	(Cu)	0.3 to 1.9	1	1
Manganese	(Mn)	0.4 to 0.7	5	5
Nickel	(Ni)	0.1 to 10	1	1
Silicon	(S)	0.15 to 2.0	15	10

Note: this is a summary of elements in alloying various cast irons and each alloy will contain different combinations of these elements. Trace elements may also be present in minute amounts.

2. Physical Data

% Volatile by Volume	N/A	Vapor Density	N/A
Vapor Pressure (mm Hg@20 deg.C)	N/A	Boiling Point	N/A
Melting Point (approximate)	2,750 F	Acidity/Alkalinity: PH	N/A
		Solubility in Water	N/A

Material in normal conditions:	Solid
Appearance and Oder:	Silver Gray, Odorless
Specific Gravity:	Approximately 7.0

3. Personal Protective Equipment

Respiratory Protection:

Appropriate dust/mist/fume respirator should be used to avoid excessive inhalation of particulates. If exposure limits are reached or exceeded, used NIOSH approved equipment.

Eyes & Face

Safety glasses should be worn when grinding or cutting. Face shields should be worn when welding or cutting

Hands, Arms, & Body

Protective Gloves should be worn as required for welding, burning, or handling operations

Other clothing & Equipment

As required depending on operations & local safety codes

4. Emergency Medical Procedures

Inhalation:

Remove to fresh air; if condition continues, consult a physician

Eye Contact:

Flush thoroughly with running water to remove particulate; Obtain medical attention

Skin Contact:

Remove particles by washing thoroughly with soap and water. Seek medical attention if irritation persists

Ingestion

If significant amounts of metal are ingested, consult a physician

5. Health and Safety information

Health: Iron products in their solid state present no inhalation, ingestion, or contact health hazards. Operations such as burning, welding, sawing, brazing, grinding, machining, which result in elevating the temperature of the product to, or above it's melting point, or result in the generation of airborne particulates, may present hazards. the major hazard is inhalation. Effects or overexposure to fume & dust are as follows:

Acute: Excessive inhalation of metallic fumes and dust may result in irritation of eyes, nose, and throat. High concentrations of fumes and dust of iron-oxide, manganese, copper, may result in metal fume fever. Typical symptoms last 12 to 48 hours and consist of a metallic taste in the mouth, dryness and irritation of the throat, chills, and fever.

Chronic: Chronic and prolonged inhalation of high concentrations of fumes or dust of the following elements may lead to the conditions listed below:

Chromium: Lesions of the skin and mucous membranes, possible cancer of the nose or lungs-bronchogenic carcinoma.

Manganese: Bronchitis, pneumonitis, lack of coordination.

Copper: No chronic debilitating symptoms indicated.

Nickel: Lesions of the skin and mucous membranes, possible cancer of the nose or bronchogenic carcinoma.

Medical conditions aggravated by exposure: Individuals with chronic respiratory disorders (i.e.: asthma, chronic bronchitis, emphysema, etc.) may be adversely affected by any fume or airborne particulate matter exposure.

Occupational Exposure Limits: See Products Ingredients Section 1. Chromium and Nickel have been identified by the International Agency for Research on Cancer (IARC) and/or the National Toxicology Program (NTP) as potential cancer causing agents.

Fire and Explosion:
Flash Point: N/A **Auto Ignition Temperature: N/A** **Flammable limits in Air (Upper & Lower): N/A**
Extinguishing Media: For molten metal, use dry powder or sand. (**DO NOT USE WATER ON MOLTEN METAL!!!)**

Fire and Explosion Hazards: Iron and steel products do not present fire or explosion hazards under normal conditions. Fine metal particles such as produced by grinding or sawing can burn. High concentrations of metallic fines in air may present an explosion hazard.

Reactivity:
Stability: Stable **Incompatibility:** (Materials to avoid) Reacts with strong acids to form Hydrogen gas.

Conditions to avoid: Iron at temperatures above the melting point may liberate fumes containing oxides of iron and alloying elements. Avoid generation of airborne fumes and dust.

Hazardous Decomposition Products: Metallic dust or fumes may be produced during welding, burning, grinding, and possible machining. Refer to ANSI Z49.1.

6. Environmental:

Spill or Leak procedures: Fine turnings and small chips should be swept up or vacuumed. Scrap metal can be reclaimed for reuse.

Waste disposal Method: Used or unused products should be disposed of in accordance with Federal, State, and local laws and regulations. Disposer must comply with Federal, State, and local disposal or discharge laws.

7. Additional information:

In welding, precautions should be taken of airborne contaminants which may originate from components of the welding rod. Arc or spark generated when welding or burning could be a source of ignition for combustion of flammable materials.