

MATERIAL SAFETY DATA SHEET

Date: September 5, 2005

Revision Date: 03-30-09

Ductile Iron Pipe

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Ductile Iron Pipe

1. PRODUCT IDENTIFICATION

CAS Reg. No.: N/A
Product Type: Iron Pipe/Castings

McWANE, INC.
 1143 Vanderbilt Rd.
 Birmingham, AL 35234
 Telephone: 205-323-2400
 For Emergencies: 877-217-6372

2. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients:	CAS Number	% Ingredient	OSHA PEL	ACGIH TLV
Carbon as C	7440-44-0	3-4	N.E.	N.E.
Silicon as Si	7440-21-3	2-3	15 mg/M ³ Total dust 5 mg/M ³ Respirable	10 mg/M ³
Manganese as Mn	7439-96-5	0.2-1	5 mg/M ³ Ceiling	0.2 mg/M ³
Chromium as Cr III	7440-47-3	0.05-1	0.5 mg/M ³	0.5 mg/M ³
Water-soluble Cr VI compounds			5 ug/ M ³	0.05 mg/M ³
Insoluble Cr VI compounds			5 ug/M ³	0.01 mg/M ³
Copper dust and mist as Copper fume	7440-50-8	0.05-1	1.0 mg/M ³ 0.1 mg/M ³	1.0 mg/M ³ 0.2 mg/M ³
Nickel as Ni	7440-02-0	0.01-1	1.0 mg/M ³	1.5 mg/M ³
Soluble inorganic compounds			1.0 mg/M ³	0.1 mg/M ³
Insoluble inorganic compounds			1.0 mg/M ³	0.2 mg/M ³
Iron as iron oxide (Fe ² O ³)	1309-37-1	80-95	10 mg/M ³	5 mg/M ³
N. E. - Not established				

HMIS Classification: Health = 0; Flammability = 0; Reactivity = 0

3. HAZARDS IDENTIFICATION

Ductile iron pipe is an article and, as such, not within the scope of the OSHA Hazard Communication standard (29 CFR 1910.1200). However, some of the components may be hazardous during modification by welding, flame cutting, torching, grinding, or machining. Follow appropriate safe work practices for eye, respiratory, and skin protection. Dust or fumes generated by machining, grinding, or welding on the casting may put contaminants in the air. Since the casting is over 85% iron, most of the dust or fume will be iron or iron oxide.

Potential Health Effects

- EYE CONTACT:** Metal particles from grinding or similar operations may cause irritation if not removed.
- SKIN CONTACT:** No adverse effects anticipated with skin contact to iron pipe. Though unlikely, metal particles from grinding may cause irritation.
- INHALATION:** None known, although metal particles from grinding may cause irritation.

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INGESTION: Ingestion not a possible route for iron pipe, although unlikely, metal particles from grinding may cause irritation.

4. FIRST AID PROCEDURES

IF IN EYES: No specific treatment is necessary since this material is not likely to be hazardous to the eye under normal usage. If dust or particles enter the eye, follow treatment procedure for injury from foreign body.

IF ON SKIN: First Aid is not normally required - wash any dust from skin with soap and water

IF INHALED: No specific treatment is necessary since this material is not likely to be hazardous by inhalation under normal usage. If exposed to excessive levels of dusts or fumes, remove to fresh air and get medical attention if cough or other symptoms develop.

IF SWALLOWED: First Aid is not normally required - not a significant route of entry; however if ill effects occur, obtain medical assistance.

NFPA Classification: Health = 0; Flammability = 0, Instability = 0

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES: None

FLASH POINT: N/A

EXTINGUISHING MEDIA: N/A

FIREFIGHTING INSTRUCTIONS: N/A

6. ACCIDENTAL RELEASE MEASURES

Ductile iron pipe is an article and not subject to accidental release. For quantities of dust following grinding or similar operations, observe protective and safety precautions when cleaning up and follow any applicable waste regulations for disposal. Refer to Section 3, Hazards Identification and Section 8, Exposure Controls/Personal Protection.

7. HANDLING AND STORAGE

HANDLING/STORAGE: Cast iron pipe is heavy; use mechanical lifting devices. Stabilize all loads using chocks and/or banding to prevent stacked loads from falling or pipe from rolling.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE PROTECTION: ANSI approved eye/face protection may be necessary if cutting, grinding, or welding this material.

SKIN PROTECTION: Protective gloves and sleeves, such as leather or Kevlar, may be worn when handling this product to protect from abrasion.

RESPIRATORY PROTECTION: NIOSH approved respirator may be required when cutting, grinding, or welding this material

VENTILATION: Adequate general ventilation and/or local exhaust ventilation may be necessary when cutting, grinding, or welding on this material.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Solid, gray-black with metallic luster;
Odor:	None
Specific gravity:	N/A
Vapor Pressure:	N/A
Solubility in Water:	Insoluble
Melting point:	2,280°F
Boiling Point:	5,000°F
PH:	N/A
Freezing Point:	N/A

10. STABILITY

STABILITY: Product is stable.

INCOMPATIBILITIES: N/A

**HAZARDOUS
DECOMPOSITION
PRODUCT:** N/A

**HAZARDOUS
POLYMERIZATION:** Will not occur

11. TOXICOLOGICAL INFORMATION

Flame cutting, arc-gouging, or welding on the casting may generate iron oxide fume. Inhalation of excessive amounts of iron oxide fume for long periods of time may cause siderosis, sometimes called "iron pigmentation" of the lung. It can be seen on a chest x-ray but causes little or no disability. Siderosis is considered a benign condition and does not progress to fibrosis. Also consult the hazard information on the Material Safety Data Sheet for the welding rod being used.

Welding or flame cutting may convert a fraction of the chromium to the water insoluble hexavalent (carcinogenic) form, but the chromium content of the casting is so low that over-exposure is not likely. Approximately 66% of the total chromium (in welding fume) is hexavalent, and only 5% of that is insoluble. Water insoluble hexavalent chromium is classified as a human carcinogen by IARC and ACGIH. Considering the small amount of chromium in the casting, an overexposure to hexavalent chromium is not likely. There is no hexavalent chromium in the alloy or its dust.

Certain nickel compounds have been classified as human carcinogens by ACGIH and as possible human carcinogens by IARC. The nickel content of the casting is so low that over-exposure is not likely.

Other toxic metals in the alloy are present in small amounts, but should not represent a health hazard if dust and fumes are adequately controlled.

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Not considered hazardous waste by EPA definitions. Observe all federal, state, and local regulations.

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14. TRANSPORTATION INFORMATION**TRANSPORTATION AND
HAZARDOUS MATERIALS
DESCRIPTION:**

Not a regulated material

15. REGULATORY INFORMATION**STATE**

CAS# 1309-37-1 (iron oxide) can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

CANADA

Ductile iron pipe is considered an article and, as such, is exempt from WHMIS regulation.

DSL/NDL CAS# 1309-37-1 (iron oxide) is listed on Canada's DSL List.
Canada – WHMIS Iron oxide has a WHMIS classification of D2B.
Canadian Ingredient Disclosure List

CAS# 1309-37-1 (iron oxide) is listed on the Canadian Ingredient Disclosure List.

16. OTHER INFORMATION

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