



## Material Safety Data Sheet

Document No. ECL/MSDS/DI 2  
Version No. 01  
Date of Issue 31-10-2016

### Section 1: Product and Company Identification

Product Name	Ductile Iron Pipes and Fittings
Trade Name	Pushlock and Pushtite
Intended Use	Conveying potable water
Company Name	Electrosteel Castings Limited
Address	Street : 30, BT Road P.O. : Sukhchar P.S. : Khardah Dist. : North 24 pgnos Pin : 700115 State : West Begal Country : India
Telephone No.	+91-33-71014 300
<b>Emergency Contact</b>	<b>+91-33-71014 300</b>
Email	<a href="mailto:Info@electrosteel.com">Info@electrosteel.com</a>
Website	<a href="http://www.electrosteel.com">www.electrosteel.com</a>

### Section 2: Composition / Information on Ingredients

Ingredients		CAS No.	Concentration Range (%)
Carbon	C	7440-44-0	3.2 - 4.3
Silicon	S	7440-21-3	1.7 - 3.0
Magnesium	Mg	7439-95-4	0.02 - 0.05
Manganese	Mn	7439-96-5	0.10 - 0.60
Nickel	Ni	7440-02-0	0.01 - 0.05
Copper	Cu	7440-50-8	0.01 - 0.05
Chromium	Cr	7440-47-3	Trace Element
Iron	Fe	7439-89-6	Balance

### Section 3: Hazard Identification of the Product

Classification Products are metallic articles that do not present hazard in their original form.

### Section 4: First Aid Measures

General	No special requirement
Inhalation	Not applicable
Eye Contact	Not applicable
Skin Contact	No special requirement
Ingestion	Not applicable

### Section 5: Fire Fighting Measures

Extinguishing media	Not Applicable
Fire fighting Instruction	Not Applicable
Flammability	Not Applicable



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### Section 6: Accidental Release Measures

General Not Applicable

### Section 7: Handling and Storage

Storage Condition No special requirement  
 Handling and Storing Procedure Pipes can be stacked in bundle or loose condition  
 Maximum recommended height of stack in layers

Pipe Size	Stack Height
3"	18 Layers
4"	16 Layers
6"	14 Layers
8"	12 Layers
10"	10 Layers
12"	8 Layers
14"	7 Layers
16"	7 Layers
18"	6 Layers
20"	6 Layers
24"	4 Layers

For safe unloading with belt , angle of sling should not be more than 20°

### Section 8: Exposure Control And Personal Protection

Ductile Iron in its solid form is stable and non-hazardous  
 Personal safety, using proper PPE, must be ensured during loading, unloading and shifting of pipes.  
 Dust from grinding and cutting will be predominately iron and some quartz. Approved protection and safety gadgets should be used by concerned operators.

### Section 9: Physical And Chemical Properties

Physical State Solid  
 Appearance Silver Grey in colour  
 Odor None  
 Vapor Density Not Applicable  
 Density 7050 Kg/m<sup>3</sup>  
 Melting Point 1150°C  
 Boiling Point 2700°C  
 Coefficient of Thermal Expansion 10.5 - 14.0 X 10<sup>-6</sup> /°C

### Section 10: Stability And Reactivity

Chemical Stability Stable  
 Condition to avoid None  
 Reactivity Not reactive  
 Incompatible materials None  
 Hazardous decomposition product None  
 Possibility of hazardous reaction Not Applicable



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### Section 11: Toxicological Information

#### Potential Health Effects

Eye Contact	None
Skin Contact	None
Ingestion	None
Inhalation	None

### Section 12: Ecological Information

Ecotoxicity	Not Applicable
Persistence and Degradability	Not Applicable
Bioaccumulation Potential	Not Applicable
Mobility in Soil	Not Applicable

### Section 13: Disposal Consideration

Dispose according to local regulation.

### Section 14: Transport Information

US Department of Transportation (DOT)-Hazardous Material Registration (HMR)	Not Regulated
Canadian Transportation of Dangerous Goods (TDG)	Not Regulated
UN Shipping Name	Not Regulated
UN Number	Not Regulated
Transport Hazard Class	Not Regulated
Packing Group	Not Regulated
Environmental Hazard	None
Label(s) Required	None
Transport in Bulk	Not Applicable
Special Shipping Information	Not Applicable

### Section 15: Regulatory Information

#### US-OSHA (Hazard Communication Standard)

Reference 29 CFR 1910.1200 and 1910.1000. A finished casting is an article as defined in OSHA Hazard Communication Standard 29CFR 1910.1200 ( c ). Dust or fumes generated by cleaning, machining, grinding, or welding of the casting may produce airborne contaminants, such as Chromium, Copper, Iron, Magnesium, Manganese, Nickel, Tin, Silicon and Silica. For hexavalent chromium references see 29 CFR 1910.1026.

#### US-EPA (Toxic Substance Control Act - TSCA)

All components of this products are on the TSCA inventory list or excluded from listing.

#### US-EPA (SARA Title III)

Releases to the environment of Chromium, Copper, Manganese and Nickel, may be subjected to reporting under section 313 of

#### CANADA-WHIMIS (Workplace Hazardous Material Information System)

This MSDS has been p-prepared according to the hazard criteria of the Controlled Product Regulation (CPR) and the MSDS contains the information required by the CPR.

#### CANADA-DSL (Domestic Substance List) Inventory Status

All components of this product are in the DSL Inventory.

#### CEPA (Canadian Environmental Protection Act)

Chromium and Nickel are on the CEPA Priorities Substances List.

#### EINECS No. ( European Inventory of Existing Commercial Chemical Substances)

All components of this product are on the EINECS list.



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### RoHS (Restriction of Certain Hazardous Substances) Compliance

Castings comply with RoHS

### California Proposition 65 Compliance

WARNING: This product contains or produces chemicals known to the State of California to cause cancer and birth defect (or other reproductive harm). (California Health and Safety code 25248.5 et seq)

### US State Regulatory Information

Some of the components listed in Section 3 may be covered under specific state regulation.

## Section 16: Other Information

MSDS Prepared By: Electrosteel Castings Limited

Date : 31st October 2016

### Note:

This data and label information is offered in good faith as typical values and not as a product specification. No warranty either expression or implied is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review the recommendations in specific context of the intended use and determine if they are appropriate.