

MATERIAL SAFETY DATA SHEET

Revision: 2
Revision Date: 9/14/05

Section 1

Manufacturer's Name
Gerdau Ameristeel Duluth
Address (No. Street, City, State, & Zip Code)
P.O. Box 16537
Duluth, MN 55816

Emergency Telephone No.
(218)722-5614

Chemical Name **Carbon Steel**
& Synonyms
Trade Name **Grinding Balls**
& Synonyms
Chemical Family NA
Formula NA

Section 11 – Hazardous Ingredients

Paints, Preservatives, & Solvents % TLV(UNITS) **Alloys & Metallic Coatings** % TLV (Units)

Pigments			Base Metal Iron Fe, (Iron Oxide: FEO)	98.5	
Catalyst			Alloys See Below		
Vehicle			Metallic Coatings NA		
Solvents			Filler Metal Plus Coating or Core Flux NA		
Additives			Others		
Others					

Hazardous Mixtures of Other Liquids, Solids or Gases

	%	TLV Units
Antimony No Test, Arsenic No Test, Barium No Test, Beryllium No Test, Cadmium No Test	0	NA
Cobalt No Test, Mercury No Test, Selenium No Test, Silver No Test, Thallium No Test, Zinc No Test	0	NA
Manganese .25 -1.7%,	.6	5mg/m3
Chromium 0 -1.1%,	.1	1mg/m3
Copper 0 -.60%,	.25	.1mg/m3
Lead 0 -.25%,	.25	.05mg/m3
Nickel 0 -.7%	.3	1mg/m3
This product contains the following toxic chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR Part 372: • Nickel		

Section III – Physical Data

Boiling Point(F)	5430 f	Specific Gravity (H2O=1)	Approx. 8
Vapor Pressure (mm Hg.)	NA	Percent Volatile by Volume (%)	NA
Vapor Density (AIR=1)	NA	Evaporation Rate -----=1	NA
Solubility in Water NA			
Appearance & Order Odorless solid with metallic luster, available as wire rod or billet			

Section IV – Fire & Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
NA			
Extinguishing Media No fire or explosion hazard – non combustible			
Special Fire Fighting Procedures NA			
Unusual Fire & Explosion Hazards NA			

Section V - Health Hazard Data

Threshold Limit Value 15 mg/m ³ considered a nuisance dust.
Effects of Overexposure No toxic effect would be expected from inert solid form, prolonged, repeated exposure to fumes & dusts
Generated during heating, cutting or welding may cause adverse health effects.
Emergency First Aid Procedures In case of overexposure, remove person to fresh air. Get medical attention if necessary.

Section VI – Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable:	X	
Incompatibility (Materials to Avoid) Contact with strong acids & caustics may produce H ₂ gas			
Hazardous Decomposition Product Metal fumes & noxious gases may be produced during welding, cutting or grinding operations (See section II)			
Hazardous Polymerization	May Occur		Conditions to Avoid
	May Not Occur	X	

Section VII – Spill or Leak Procedures

Steps to be taken in Case Material is Released or Spilled NA
Waste Disposal Method Any approved disposal method – follow local regulations

Section VIII – Special Protection Information

Respiratory Protection (Specify Type) Properly fitted NIOSH approved dust – fume respirator.		
Ventilation	Local Exhaust To maintain TLV	Special
	Mechanical (General)	Other
Protective Gloves For abrasion	Eye Protection When cutting, welding or grinding etc...	
Other Protective Equipment		
Protective footwear		

Section IX – Special Precautions

Precautions to be Taken in Handling & Storing During welding, cutting or grinding precautions should be taken to control airborne particulate & fumes
Other Precautions NA