



## MATERIAL SAFETY DATA SHEET

SECTION I PRODUCT INFORMATION		
<b>Product Name:</b>	Blast Furnace Slag (Granulated)	
<b>Material Type:</b>	Blast Furnace By-product	
<b>Product Use:</b>	Cement Raw Material	
<b>Manufacture's Name &amp; Address:</b>	<b>ESSAR Steel Algoma Inc.</b> 105 West Street Sault Ste. Marie Ontario, Canada P6A 7B4	
<b>Emergency Phone Numbers:</b>	(705) 945-4058 (8:00 am - 4:00 pm) (705) 945-2271 (after hours)	<b>Revision Date:</b> August 13, 2007
<b>WHMIS Class:</b>	D <sub>2</sub>	
<b>TDG Information:</b>	NA	

SECTION II INGREDIENT LISTING					
			*TWAEV Ontario Regulation (833)	Toxicity	
Ingredient:	CAS. No.	%	(*PPM/mg/m <sup>3</sup> )	LD50	LC50
Silicon Dioxide	7440-21-3	40	10 mg/m <sup>3</sup>	7340 mg/kg	NA
Calcium Oxide	1305-78-8	38	2 mg/m <sup>3</sup>	1421 mg/kg	NA
Magnesium Oxide	1309-48-4	11	10 mg/m <sup>3</sup>	NA	NA
Aluminum Oxide	1344-28-1	8	10 mg/m <sup>3</sup>	NA	NA
Sulphur	7704-34-9	1	-	NA	NA
Barium	7440-39-3	1	-	630 mg/kg	NA
Manganese Oxide	7439-96-5	0.6	0.2 mg/m <sup>3</sup>	3040 mg/kg	NA
Iron Oxide	1309-37-1	0.6	5 mg/m <sup>3</sup>	30000 mg/kg	NA

\* TWAEV = Time Weighted Average Exposure Value

\*PPM = Parts Per Million

\*mg/m<sup>3</sup> = Milligrams Per Cubic Metre



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**STEEL**

SECTION III PHYSICAL DATA			
<b>Physical State:</b>	Solid	<b>PH:</b>	N/A
<b>Boiling Point: (<sup>0</sup>C)</b>	N/A	<b>Specific Gravity(H<sub>2</sub>O =1):</b>	U
<b>Melting Point: (<sup>0</sup>C)</b>	N/A	<b>% Volatile by Volume:</b>	N/A
<b>Vapour Pressure: (mmHg)</b>	N/A	<b>Evaporation Rate:</b>	N/A
<b>Vapour Density: (Air =1)</b>	N/A	<b>Appearance &amp; Odour:</b>	Glassy solid Slight sulphur odour
<b>Solubility in H<sub>2</sub>O:</b>	Insoluble	<b>Coefficient Water/Oil Distribution</b>	N/A

SECTION IV FIRE AND EXPLOSION HAZARD DATA						
<b>Flammable:</b>	<b>YES:</b>		<b>NO:</b>	<b>X</b>	<b>Flash Point: (<sup>0</sup>C) Closed Cup:</b>	N/A
<b>Flammable Limits:</b>	<b>LEL:</b>	N/A	<b>UEL:</b>	N/A		
<b>Extinguishing Media:</b>	N/A					
<b>Susceptibility to Mechanical Impact: or Static Discharge:</b>	N/A					
<b>Fire Fighting Procedures:</b>	N/A					

SECTION V REACTIVITY DATA	
<b>Stability:</b>	Stable
<b>Incompatible Materials:</b>	Strong acids or oxidizers
<b>Decomposition Products:</b>	Oxides of sulphur and oxygen

SECTION VI TOXICOLOGICAL INFORMATION	
<b>Acute Effects:</b>	May cause abrasive irritation to skin or eyes. Burning material may generate sulphur dioxide gas. Prolonged exposure to dust may cause upper respiratory irritation.
<b>Chronic Effects:</b>	Prolonged exposure to sulphur dioxide gas or dust from product may cause upper respiratory irritation or lung damage.



<b>SECTION VII FIRST AID MEASURES</b>	
<b>Inhalation:</b>	Remove to fresh air.
<b>Skin Contact:</b>	Wash contaminated skin with soap and water.
<b>Eye Contact:</b>	Flush eyes with water for 15 minutes. Seek medical aid if irritation persists.
<b>Ingestion:</b>	Do not take internally. Seek medical aid if irritation persists.

<b>SECTION VIII PREVENTIVE MEASURES</b>	
<b>Respiratory Protection:</b>	Use a NIOSH approved respirator for dusty conditions or if product is burning.
<b>Protective Gloves/Clothing:</b>	Cotton or impervious gloves as required.
<b>Eye Protection:</b>	Safety glasses or monogoggles for dusty conditions.
<b>Ventilation:</b>	Use adequate ventilation to avoid overexposure to dust.
<b>Spill Cleanup:</b>	Avoid generation of dust. Scoop up or wet sweep material and place in Container for reuse or disposal.
<b>Waste Disposal:</b>	Dispose of according to applicable environmental legislation.
<b>Handling/Storage:</b>	No special storage or handling requirements.

<b>SECTION IX SPECIAL PRECAUTIONS</b>
May contain trace amounts of crystalline silica, which has been listed by I.A.R.C. and the A.C.G.I.H. as a suspected human carcinogen.

<b>SECTION X PREPARATION INFORMATION</b>	
<b>Prepared by:</b> <b>ESSAR Steel Algoma Inc.</b> <b>Occupational Health and Safety Department</b>	<b>MSDS Inquiries</b> <b>Phone: (705) 945-4058</b>

U = Unknown

N/A = Not applicable