



Revised January 1, 2014

MSDS

Material Safety Data Sheet

PRODUCT NAME: SLAG

1.	CHEMICAL PRODUCT & COMPANY IDENTIFICATION
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Supplier

Name: R. W. Sidley, Inc.
 Address: 436 Casement Avenue
 Painesville, OH 44077
 Telephone: 440-352-9343

Product Identifier

Blast Furnace Slag, Steel Slag, Granulated Slag, Pelletized Slag, Metallic Slag, Air Cooled Slag, Non-metallic Slag, Mill Scale

Note: This MSDS covers many products. Individual composition of hazardous constituents will vary.

WHMIS Classification: D2A

Emergency Telephone Numbers 440-352-9343

2.	INFORMATION ON COMPONENTS
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Component Name	%	CAS No.
Amorphous Silica, Hydrated	30 - 50	7631-86-9
Calcium Compounds	30 - 50	various
Aluminum Compounds	0 - 20	various
Crystalline Silica	0 - 15	14808-60-7
Magnesium Compounds	0 - 20	various
Iron Compounds	0 - 10	various
Titanium Compounds	0 - 5	various
Manganese Compounds	0 - 2	various

Component Name	EXPOSURE LIMITS	
	OSHA PEL TWA	ACGIH TLV TWA
*Amorphous Silica Hydrated	(80 mg/m ³)/(%SiO ₂)	
Uncalcined Respirable Particulate		*3 mg/m ³
Uncalcined Inhalable Particulate		*10 mg/m ³
Calcium Oxide	5 mg/m ³	2 mg/m ³
Aluminum Oxide (Respirable Fraction)	5 mg/m ³	
(Total Dust)	15 mg/m ³	10 mg/m ³
Crystalline Silica Quartz		
Quartz (Respirable)	10 mg/m ³ /(%SiO ₂ +2)	
Quartz (Total Dust)	30 mg/m ³ /(%SiO ₂ +2)	0.05 mg/m ³
Magnesium Oxide	15 mg/m ³	10 mg/m ³
Iron Oxide	10 mg/m ³	5 mg/(Fe)/m ³
Titanium Oxide (Total Dust)	15 mg/m ³	10 mg/m ³
Manganese Oxide		5 mg/m ³
Nuisance Dust (Respirable)	5 mg/m ³	3 mg/m ³
(Total /Inhalable)	15 mg/m ³	10 mg/m ³

* These values are for particulate matter containing no asbestos and < 1% crystalline silica

3.	HAZARD IDENTIFICATION
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Emergency Overview

Solid; light grey/brown; odorless.

Potential Health Effects

INHALATION (acute): Breathing dust may cause nose, throat or lung irritation and choking. The described effect depends on the degree of exposure.

INHALATION (chronic): Prolonged or repeated exposure may cause lung injury including silicosis. This product may contain crystalline silica. Crystalline silica has been classified by IARC as a known human carcinogen. Some human studies indicate potential for lung cancer from crystalline silica exposure. Risk of injury depends on duration and level of exposure. Long term exposures which result in silicosis may result in additional health effects.

EYE CONTACT (acute/chronic): May cause eye irritation, burns and damage to cornea.

SKIN CONTACT (acute/chronic): May cause dry skin, redness, discomfort, irritation. Thickening of the skin (scleroderma) may be associated with exposure to high levels of crystalline silica.

INGESTION (acute/chronic): Ingestion of large amounts may cause intestinal distress.

4.	FIRST AID MEASURES
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INHALATION: Move person to fresh air. Seek medical attention for discomfort.

EYE CONTACT: Rinse thoroughly with water. Seek medical attention for abrasions.

SKIN CONTACT: Wash with soap and water.

INGESTION: Do not induce vomiting, but drink plenty of water. Seek medical attention for discomfort.

5.	FIREFIGHTING MEASURES
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Flashpoint and Method: None.

Flammable Limits: Not combustible.

Autoignition Temperature: None.

General Hazard: Avoid breathing dust.

Firefighting Instructions: Treat adjacent material.

Firefighting Equipment: This product is not a fire hazard. Self contained breathing apparatus is recommended to limit exposures to smoke from any combustion source.

Hazardous Combustion Products: None.

6. ACCIDENTAL RELEASE MEASURES

General: Wind blown dust may cause the hazards identified in Section 3. Remove spilled material to limit potential harm.

Land Spill: Clean up spilled material.

Water Spill: Clean up spilled material.

7. HANDLING AND STORAGE

General: Avoid accidental release.

Storage Temperature: Unlimited.

Storage Pressure: Unlimited.

Empty Containers: Dispose of containers in an approved landfill or incinerator.

8. EXPOSURE CONTROL & PERSONAL PROTECTION**Engineering Controls**

Use exhaust ventilation to maintain dust levels below exposure limits in workplaces with poor ventilation and dusty conditions.

Personal Protection

RESPIRATORY PROTECTION: Under ordinary conditions no respiratory protection is required. Wear a NIOSH approved respirator when exposed to dust above exposure limits.

EYE PROTECTION: Wear glasses or safety goggles to prevent contact with eyes. Wearing contact lenses when using this product under dusty conditions is not recommended.

SKIN PROTECTION: Wear impervious gloves, shoes and protective clothing to prevent skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Vapor Pressure:	Not measurable
Vapor Density:	Not measurable
Specific Gravity:	2.5 - 3.0
Solubility in Water:	Negligible
Evaporation Rate:	Not measurable
pH (in water):	Neutral
Boiling Point:	>1000° C
Freezing Point:	None, solid
Viscosity:	None, solid

10. STABILITY AND REACTIVITY

General: Product is stable.

Incompatible Materials and Conditions to Avoid: Dissolves in hydrofluoric acid producing corrosive silicon tetrafluoride gas. Silicates react with powerful oxidizers such as fluorine, chlorine trifluoride and oxygen difluoride.

Hazardous Decomposition: None, solid.

11. MSDS PREPARATION AND TOXICOLOGICAL INFORMATION

For detailed toxicological information contact:

Environment , Health & Safety and Government Affairs
R. W. Sidley, Inc.
436 Casement Avenue
Painesville, OH 44077
440-352-9343

12. ECOLOGICAL INFORMATION

For detailed ecological information: See Section 11 above.

13. DISPOSAL CONSIDERATIONS

Dispose in landfill in accordance with all applicable regulations. Any disposal practice must be in compliance with local, provincial, state and federal laws and regulations. Contact local environmental agency for specific rules.

14. REQUIRED TRANSPORT INFORMATION

Not a hazardous material for DOT or TDG shipping.

15. REGULATORY INFORMATION

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

OSHA Hazard Communication Rule, 29 CFR 1910.1200:

Some constituents identified in this product are considered by OSHA to be hazardous and should be included in the employer's hazard communication program.

CERCLA/SUPERFUND, 40 CFR 117,302:

Not listed.

SARA TITLE III, Sections 311-312 Hazard Category:

This product has been reviewed according to the EPA Hazard Categories promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 and is considered a hazardous chemical and a delayed health hazard.

SARA Section 313 Information:

This product contains NONE of the substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Toxic Substance Control Act (TSCA):

Some constituents identified in this product are listed on the TSCA Inventory.

California Proposition 65:

CHRYSTALLINE SILICA (CAS - 14808-60-7) is considered to be a carcinogen by the state of California.

WHMIS Information

This product contains substances considered to be hazardous by Health Canada and is a controlled product. Consult local authorities for acceptable exposure limits. WHMIS <http://www.hc-sc.gc.ca/whmis>

16. OTHER INFORMATION**Abbreviations:**

CAS No	Chemical Abstract Service number
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
ACGIH	American Conference of Governmental Industrial Hygienists
TLV	Threshold Limit Value
TWA	Time Weighted Average (8 hour)
CL	Ceiling Limit
mg/m ³	milligrams per cubic meter
IARC	International Agency for Research on Cancer
NIOSH	National Institute for Occupational Safety and Health
pH	negative log of hydrogen ion
>	greater than
DOT	U.S. Department of Transportation
TDG	Transportation of Dangerous Goods
CFR	Code of Federal Regulations
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
SARA	Superfund Amendments and Reauthorization Act
WHMIS	Workplace Hazardous Materials Information System

Information in this MSDS is believed to be current and accurate at the time provided. It is the user's obligation to determine the conditions of safe use of this product.