

## Safety data sheet

According to 1907/2006/EC (REACH), 1272/2008/EC (CLP),  
and US GHS

Printing date: 21.07.2015

Revision: 21.07.2015

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

<b>1.1</b>	<b>Product Identifier</b>	<b>BLASTITE, BLITZBLAST, DURATRED, FASTBLAST, NIAGARA BLAST, EXOBLAST, DURALUM, DURABLU</b>
	<b>GHS Product Identifier</b>	<b>BLASTITE , BLITZBLAST, DURATRED, FASTBLAST, NIAGARA BLAST, EXOBLAST, DURALUM G52E, G52E P, G52E RK, G82, G82P, GW, GW VIT, HBD, HC, K5, LBD, RF, DCF, LT, LTR, C ART, C AR RK, C PRT, C PR RK, LT C AT, LT C ART, LT C AR RK, LT C PT, LT C PRT, XA, SK, EB, PB, REF/P, PC, TP RK, WP,BFA, G52 DURABLU C ABRT, C PBRT, LT C ABRT, LT C PBRT, C A BR RK, C PBR RK, LT C ABR RK, LT CPBR RK, LT, GW</b>
	<b>Chemical Name</b>	<b>Mixture (Brown Aluminum Oxide)</b>
	<b>Trade Name</b>	See Product Identifier
	<b>CAS No.</b>	Mixture
	<b>EINECS No.</b>	Mixture
	<b>REACH Registration No.</b>	01-2119529248-35-0043
<b>1.2</b>	<b>Relevant Identified Uses Of The Substance Or Mixture And Uses Advised Against</b>	
	Identified Use(s)	Consult the supplier.
	Uses Advised Against	Users are recommended to seek further advice.
<b>1.3</b>	<b>Details Of The Supplier Of The Safety Data Sheet</b>	
	Company Identification	<b>Washington Mills</b>
	Address	1801 Buffalo Avenue Niagara Falls, NY 14302
	Telephone	1-800-828-1666
	E-Mail (Competent Person)	<a href="mailto:info@washingtonmills.com">info@washingtonmills.com</a>
	<b>REACH Registration Company Information</b>	
	Company Identification	WASHINGTON MILLS ELECTRO MINERALS LTD.
	Address	MOSLEY ROAD, TRAFFORD PARK
	Postal Code/Location	MANCHESTER M17 1NR, UNITED KINGDOM
	Telephone	0044 (0)161 848 0271
	Fax	0044 (0)161 872 2974
	<b>Further information obtained from:</b>	
	Telephone	+ 0044 (0)161 873 5512
	E-Mail (expert)	<a href="mailto:clive.wood@washingtonmills.co.uk">clive.wood@washingtonmills.co.uk</a>
<b>1.4</b>	<b>Emergency Telephone Number – ChemTel</b>	
		<b>(800)255-3924 (USA/Canada), 813-248-0585 (International)</b>

### SECTION 2: HAZARDS IDENTIFICATION

<b>2.1</b>	<b>Classification Of The Substance Or Mixture</b>	
<b>2.1.1</b>	<b>Classification according to Regulation (EC) No. 1272/2008 (CLP)</b>	
		The product is not classified as hazardous according to the Globally Harmonized System (GHS). The product is not classified as hazardous according to OSHA GHS regulation within the United States. The product is not classified as hazardous according to the CLP regulation.
	<b>Additional information:</b>	Product has less than 0.1% inhalable dust containing known and/or suspect carcinogens per established guidelines, and is therefore not classifiable as a carcinogen. There are no other hazards not otherwise classified that have been identified. 0% of the mixture consists of component(s) of unknown toxicity.
<b>2.2</b>	<b>Label Elements</b>	
<b>2.2.1</b>	<b>Label Elements According to Regulation (EC) No. 1272/2008 (CLP)</b>	
		This product does not have a classification according to the CLP regulation. The product is not classified as hazardous according to OSHA GHS regulations within the United States.
	<b>Hazard</b>	Not regulated
	<b>Signal</b>	Not regulated
	<b>Pictogram(s)</b>	
	<b>Word(s)</b>	
	<b>Hazard-determining components of labelling:</b>	None
	<b>Hazard</b>	Not Regulated
	<b>Statement(s)</b>	



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2.3	<b>NFPA ratings (scale 0 - 4)</b>		Health = 0 Fire = 0 Reactivity = 0
	<b>HMIS-ratings (scale 0 - 4)</b>		Health = 0 Fire = 0 Reactivity = 0
	<b>HMIS Long Term Health Hazard</b>	None of the ingredients are listed.	
	<b>Substances Other Hazards</b>		
	<b>Results of PBT and vPvB assessment</b>	<b>PBT:</b> Not applicable. <b>vPvB:</b> Not applicable.	


## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2 Mixtures

**Description:** Mixture of substances listed below with nonhazardous additions.

Hazardous Ingredient(s)	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard Pictogram(s) and Hazard Statement(s)
Aluminum Oxide	>90	1344-28-1	215-691-6	NA	None Substance with a Community workplace exposure limit
Silica, fused	<5	7631-86-9	231-545-4	NA	None Substance with a Community workplace exposure limit
Titanium Dioxide	<5	13463-67-7	236-675-5	NA	None Substance with a Community workplace exposure limit
Diiron trioxide / iron (III) oxide	<5	1309-37-1	215-168-2	NA	None Substance with a Community workplace exposure limit

#### Dangerous Components (Alternative Classifications):

Hazardous Ingredient(s)	%W/W	CAS No.	Hazard Pictogram(s) and Hazard Statement(s)
Titanium Dioxide	<5	13463-67-7	 3.6/2 H351

**3.3 Additional Information:** Non-classification as a carcinogen is based on non-inhalable form of product. IARC listings for titanium dioxide note that substance must be respirable.

## SECTION 4: FIRST AID MEASURES

<b>4.1 Description of First Aid Measures</b>	
<b>General Information:</b>	No special measures required.
<b>After Inhalation:</b>	Supply fresh air; consult doctor in case of complaints.
<b>After Skin Contact:</b>	Brush off loose particles from skin. Wash with soap and water. If skin irritation is experienced, consult a doctor.
<b>After Eye Contact:</b>	Remove contact lenses if worn. Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
<b>After Swallowing:</b>	Rinse out mouth and then drink plenty of water. Do not induce vomiting; call for medical help immediately.
<b>4.2 Most Important Symptoms And Effects, Both Acute And Delayed Hazards</b>	Slight irritant effect on eyes.  No further relevant information available.

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<b>4.3 Indication Of The Immediate Medical Attention And Special Treatment Needed</b>	No further relevant information available.
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## SECTION 5: FIRE-FIGHTING MEASURES

<b>5.1 Extinguishing Media</b>	
Suitable Extinguishing Media	Use fire extinguishing methods suitable to surrounding conditions.
Unsuitable Extinguishing Media	None.
<b>5.2 Special Hazards Arising From The Substance Or Mixture</b>	No further relevant information available.
<b>5.3 Advice for Fire-Fighters</b>	Wear self-contained respiratory protective device. Wear fully protective suit.
<b>Additional Information</b>	No further relevant information available.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

<b>6.1 Personal Precautions, Protective Equipment And Emergency Procedures</b>	Avoid formation of dust. For large spills, wear protective clothing. For large spills, use respiratory protective device against the effects of fumes/dust/aerosol. Ensure adequate ventilation.
<b>6.2 Environmental Precautions</b>	No special measures required.
<b>6.3 Methods And Material For Containment And Cleaning Up</b>	Pick up mechanically. Send for recovery or disposal in suitable receptacles. Dispose contaminated material as waste according to item 13.
<b>6.4 Reference To Other Sections</b>	See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

## SECTION 7: HANDLING AND STORAGE

<b>7.1 Precautions For Safe Handling</b>	Any unavoidable deposit of dust must be regularly removed. Use only in well ventilated areas. Do not dry clean dust covered objects and floors. Wash thoroughly with plenty of water. Prevent formation of dust.
<b>Information About Fire – and explosion protection</b>	No special measures required.
<b>7.2 Conditions For Safe Storage, Including Any Incompatibilities: Requirements to be Met by Storerooms and Receptacles:</b>	No special requirements.
<b>Information About Storage in One Common Storage Facility:</b>	Store away from oxidizing agents. Store away from foodstuffs. Do not store together with acids.
<b>Further information about storage conditions:</b>	None.
<b>7.3 Specific End Use(s)</b>	No further relevant information available.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Additional information about design of technical facilities:** No further data; see item 7.

**8.1 Control Parameters**

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Ingredients with limit values that require monitoring at the workplace:			
Aluminum Oxide	1344-28-1	PEL (USA)	Long-term value: 15*; 15** mg/m <sup>3</sup> *Total dust; ** Respirable fraction
		REL (USA)	Long-term value: 10* 5** mg/m <sup>3</sup> As Al *Total dust **Respirable/pyro powd./welding f.
		TLV (USA)	Long-term value: 1* mg/m <sup>3</sup> as Al; *as respirable fraction
		EL (Canada)	Long-term value: 1,0 mg/m <sup>3</sup> respirable, as Al
		EV (Canada)	Long-term value: 10 mg/m <sup>3</sup> total dust
Silica, fused	60676-86-0	PEL (USA)	See Quartz listing
		TLV (USA)	TLV withdrawn
		EV (Canada)	Long-term value: 0,1 mg/m <sup>3</sup> respirable
Titanium Dioxide	13463-67-7	PEL (USA)	Long-term value: 15* mg/m <sup>3</sup> *total dust
		REL (USA)	See Pocket Guide App. A
		TLV (USA)	Long-term value: 10 mg/m <sup>3</sup> withdrawn from NIC
		EL (Canada)	Long-term value: 10* 3** mg/m <sup>3</sup> *total dust; **respirable fraction; IARC 2B
		EV (Canada)	Long-term value: 10 mg/m <sup>3</sup> total dust
Diiron trioxide / iron (III) oxide	1309-37-1	PEL (USA)	Long-term value: 10* 15** 5***mg/m <sup>3</sup> *Fume; Rouge: **Total dust, ***respirable
		REL (USA)	Long-term value: 5 mg/m <sup>3</sup> Dust & fume, as Fe
		TLV (USA)	Long-term value: 5* mg/m <sup>3</sup> *as respirable fraction
		EL (Canada)	Short-term value: 10** mg/m <sup>3</sup> Long-term value: 5* 10*** 3**** mg/m <sup>3</sup> *dust & fume ** fume; Rouge: ***total dust ****resp.
		EV (Canada)	Long-term value: 5* 10** mg/m <sup>3</sup> *respirable, including Rouge; **total dust

**Additional information:** The lists valid during the making were used as basis.

## 8.2 Exposure Controls

### Personal protective equipment:

### General protective and hygienic measures:

<b>8.2</b>	<b>Exposure Controls</b>	
<b>8.2.2</b>	<b>Personal Protective Equipment:</b>	
	<b>General protective and hygienic measures:</b>	The usual precautionary measures are to be adhered to when handling chemicals. Wash hands before breaks and at the end of work. Immediately remove all soiled and contaminated clothing. Keep away from foodstuffs, beverages and feed.
	<b>Respiratory Protection</b>	Use suitable respiratory protective device when high concentrations are present. For spills, respiratory protection may be advisable.
	<b>Eye Protection</b>	Wear safety glasses.
	<b>Protection of Hands</b>	Wear protective gloves.
	<b>Body Protection</b>	Not required under normal conditions of use. Protection may be required for spills.
	<b>Limitation and</b>	No further relevant information available.

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	<b>supervision of exposure into the environment</b>	
	<b>Risk Management Measures</b>	No further relevant information available. See Section 7 for additional information.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>9.1 Information On Basic Physical And Chemical Properties</b>			
Appearance	Solid granular product	Color	Black or Green
Odor	Odorless	Odor Threshold (ppm)	Not available
Melting Point (°C) / Freezing Point (°C)	Not available	Boiling Point/Boiling Range (°C)	Not available
Flash Point (°C)	No Data	Explosive Limit Ranges	Not available
Auto Ignition Temperature (°C)	Not available	Decomposition Temperature (°C)	4892 ° F / 2700 ° C
Explosive Properties	None	Oxidizing Properties	Not available
Flammability (Solid, Gas)	Not available	Ph (Value)	Not available
Evaporation Rate	N/A	Vapor Pressure (mm Hg)	Not available
Vapor Density (Air=1)	N/A	Density (g/ml)	Not available
Solubility (Water)	Insoluble	Solubility (Other)	Not available
Partition Coefficient (N-Octanol/Water)	Not available	Viscosity (mPa.s)	Not available
<b>9.2 Other Information</b>	Volatile Organic Chemical (VOC) Content – Not Available.		

## SECTION 10: STABILITY AND REACTIVITY

<b>10.1 Reactivity</b>	
<b>10.2 Chemical Stability</b>	
<b>Thermal Decomposition / conditions to be avoided:</b>	No decomposition if used according to specifications.
<b>10.3 Possibility of Hazardous Reactions</b>	As the product is supplied it is not capable of dust explosion; however enrichment with fine dust causes risk of dust explosion.
<b>10.4 Conditions To Avoid</b>	No further relevant information available.
<b>10.5 Incompatible Materials</b>	No further relevant information available.
<b>10.6 Hazardous Decomposition Product(s)</b>	Toxic metal oxide smoke.

## SECTION 11: TOXICOLOGICAL INFORMATION

<b>11.1 Information on Toxicological Effects</b>		
<b>LD/LC50 values relevant for classification:</b>		
<b>13463-67-7 titanium dioxide</b>		
Oral	LD50	> 20000 mg/kg (rat)
Dermal	LD50	>10000 mg/kg (rabbit)
Inhalative	LC50/4 h	> 6,82 mg/l (rat)
<b>Primary Irritant Effect:</b>		
<b>On the skin:</b>	Slight irritant effect on skin and mucous membranes.	
<b>On the eye:</b>	Slight irritant effect on eyes.	
<b>Sensitisation:</b>	No sensitizing effects known.	
<b>Additional toxicological information:</b>	The substance is not subject to classification according to the latest version of the EU lists.	
<b>CMR effects (carcinogenicity, mutagenicity, and toxicity for reproduction):</b>	Product is in non-inhalable form and is nonclassifiable as a carcinogen.	

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## SECTION 12: ECOLOGICAL INFORMATION

<b>12.1 Toxicity</b>	No data
<b>Aquatic toxicity:</b>	No further relevant information available.
<b>12.2 Persistence and Degradability</b>	Inorganic product, is not eliminable from water by means of biological cleaning processes.
<b>12.3 Bioaccumulative Potential</b>	Does not accumulate in organisms.
<b>12.4 Mobility in Soil</b>	No further relevant information available.
<b>Additional ecological information:</b>	
<b>General notes:</b>	Generally not hazardous for water. Due to consistence and the low water solubility of the product a bioavailability is not probable. Due to available data on eliminability/decomposition and bioaccumulation potential a prolonged damage of the environment is unlikely.
<b>12.5 Results of PBT and vPvB Assessment</b>	<b>PBT:</b> Not applicable. <b>vPvB:</b> Not applicable.
<b>12.6 Other Adverse Effects</b>	No further relevant information available.

## SECTION 13: DISPOSAL CONSIDERATIONS

<b>13.1 Waste Treatment Methods Recommendation</b>	Contact manufacturer for recycling information. Contact waste processors for recycling information. On the basis of the necessary technical regulations and after consultation with the disposal agent and the relevant authorities, can be disposed of with domestic waste or incinerated with domestic waste.
<b>Uncleaned Packaging: Recommendation:</b>	Packaging may be reused or recycled after cleaning. Disposal must be made according to official regulations.

## SECTION 14: TRANSPORT INFORMATION

<b>Land Transport (ADR/RID) (c)(d)</b>		<b>Land Transport (Within USA) (b)(d)</b>	
UN Number	None	UN Number	None
Proper Shipping Name	Not classified as dangerous for transport.	Proper Shipping Name	Not classified as dangerous for transport.
Transport Hazard Class(es)	None	Transport Hazard Class(es)	None
Packing Group	None	Packing Group	None
Hazard Label(s)	None	Hazard Label(s)	None
Environmental Hazards	None	Environmental Hazards	None
Special Precautions For User	None	Special Precautions For User	None
<b>Sea Transport (IMDG) (c)</b>		<b>Air Transport (ICAO/IATA) (c) (d)</b>	
UN Number	None	UN Number	None
Proper Shipping Name	Not classified as dangerous for transport.	Proper Shipping Name	Not classified as dangerous for transport.
Transport Hazard Class(es)	None	Transport Hazard Class(es)	None
Packing Group	None	Packing Group	None
Marine Pollutant	None	Marine Pollutant	None
Special Precautions For User	None	Special Precautions For User	None
<p><i>(b)- ORM-D may be applicable within the USA for package sizes less than 30kg.</i></p> <p><i>(c)- Consult with transport provider.</i></p> <p><i>(d)- Check relevant regulations for Special Provisions.</i></p> <p><b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b></p>			

## SECTION 15: REGULATORY INFORMATION

**15.1 Safety, Health And Environmental Regulations/Legislation Specific For The Substance Or Mixture**

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## USA

### SARA

Section 355 (extremely hazardous substances)	None of the ingredients are listed.
SARA 313 (Specific toxic chemical listings)	1344-28-1 aluminum oxide
TSCA (Toxic Substance Control Act)	All ingredients are listed.
<b>Proposition 65 (California):</b> Chemicals known to cause cancer:	References to chemical components listed below are based on unbound respirable particles and are not generally applicable to product as supplied. 13463-67-7 titanium dioxide
Chemicals known to cause reproductive toxicity for females:	None of the ingredients are listed.
Chemicals known to cause reproductive toxicity for males:	None of the ingredients are listed.
Chemicals known to cause developmental toxicity:	None of the ingredients are listed.
<b>Carcinogenic Categories</b>	
EPA (Environmental Protection Agency)	None of the ingredients are listed.
IARC (International Agency for Research on Cancer)	60676-86-0 silica, fused 3 13463-67-7 titanium dioxide 2B 1309-37-1 diiron trioxide / iron (III) oxide 3
<b>TLV (Threshold Limit Value established by ACGIH)</b>	1344-28-1 aluminium oxide A4 13463-67-7 titanium dioxide A4 1309-37-1 diiron trioxide / iron (III) oxide A4
<b>MAK (German Maximum Workplace Concentration)</b>	1344-28-1 aluminium oxide 2 13463-67-7 titanium dioxide 3A
<b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b>	13463-67-7 titanium dioxide

### Canada

Canadian Domestic Substances List (DSL)	All ingredients are listed.
Canadian Ingredient Disclosure list (limit 0.1%)	None of the ingredients are listed.
Canada Ingredient Disclosure list (limit 1%)	1344-28-1 aluminium oxide 60676-86-0 silica, fused 1309-37-1 diiron trioxide / iron (III) oxide

### Other regulations, limitations and prohibitive regulations

Substances of very high concern (SVHC) according to REACH, Article 57	None of the ingredients are listed.
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## 15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out.

## SECTION 16: OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Additional information:

- The accumulation of airborne dust particles may lead to health and safety risks in some cases. The use of good industrial practices will mitigate this risk.
- The health risks from inhalation of dust particles vary; this is due to particle concentration, exposure length, number of exposures and type of particles inhaled. Please read Section 2,4,6,7 and 8 of the SDS to understand these potential risks. Wear personal protective equipment and follow storage and handling procedures to maintain a safe workplace.
- In rare instances, combustible dusts may represent a potential explosion hazard when airborne. This hazard is often associated with organic dust such as foodstuffs and coal, but may also occur with mineral products. While the majority

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Please read the SDS for specific information concerning these hazards, and contact us with any further questions. We appreciate your continued business.

## Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstract Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

## Sources

SDS Prepared by:

ChemTel Inc.

1305 North Florida Avenue