WASHINGTON MILLS

Safety data sheet

Printing date: 20.09.2018 | According to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and US GHS | Revision: 20.09.2018

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

1.1	**Product Identifier**	**Duramedia 3DCM, 3DCML**
	GHS Product Identifier	**Duramedia 3DCM, 3DCML**
	Chemical Name	**Fired Ceramic Mass Finishing Media**
	Trade Name	See Product Identifier
	CAS No.	Not available
	EINECS No.	Not available
	REACH Registration No.	Not available
1.2	**Relevant Identified Uses Of The Substance Or Mixture And Uses Advised Against**	
	Application of the substance / the mixture	Preparation of ceramic parts and coatings
1.3	**Details Of The Supplier Of The Safety Data Sheet**	
	Company Identification	**Washington Mills Electro Minerals Corp**.
	Address	1801 Buffalo Avenue Niagara Falls, NY 14302
	Telephone	(716) 278-6600
	E-Mail (Competent Person)	info@washingtonmills.com
1.4	**Emergency Telephone Number – ChemTel**	
	(800)255-3924 (USA/Canada), 813-248-0585 (International)	

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification Of The Substance Or Mixture

2.1.1 Classification according to Regulation (EC) No. 1272/2008 (CLP)

The product is not classified as hazardous according to the Globally Harmonized System (GHS).
The product is not classified as hazardous according to the CLP regulation.

Additional information:
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.

2.2 Label Elements

2.2.1 Label Elements *According to Regulation (EC) No. 1272/2008 (CLP)*

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.

Hazard Pictogram(s)	Not Regulated	**Signal Word(s)**	Not Regulated
Hazard Statement(s)	Not Regulated		
Additional information	Safety data sheet available on request.		

Hazard description:

NFPA ratings (scale 0 - 4)

Health = 1
Fire = 0
Reactivity = 0

HMIS-ratings (scale 0 - 4)

Health = *0
Fire = 0
Reactivity = 0

HMIS Long Term Health Hazard Substances: 13463-67-7 titanium dioxide

2.3 Other Hazards

There are no other hazards not otherwise classified that have been identified.

Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures
Description: Mixture of substances listed below with nonhazardous additions.
Dangerous Components:

Hazardous Ingredient(s)	%W/W	CAS No.	EC No.	Index No.	Hazard Pictogram(s)	Hazard Statement(s) and Risk (R) Phrase(s)
aluminium oxide	65 - 88	1344-28-1	215-691-6	NA	None	substance with a Community workplace exposure limit
zirconium dioxide	10 – 25	1314-23-4	215-227-2	NA	None	substance with a Community workplace exposure limit
manganese dioxide	1 - 7	1313-13-9	215-202-6	025-001-00-3		STOT RE 2, H373
						Acute Tox. 4, H302; Acute Tox. 4, H332
diiron trioxide / iron (III) oxide	0 - 10	1309-37-1	215-168-2	NA	None	substance with a Community workplace exposure limit
titanium dioxide	0,5 - 2	13463-67-7	236-675-5	NA	None	substance with a Community workplace exposure limit

Additional information: For the wording of the listed risk phrases refer to section 16. All formulas do not equate to 100% of material composition, all other materials not listed are considered inert.

Notable Trace Components (< 0,1% w/w):

Hazardous Ingredient(s)	%W/W	CAS No.	EC No.	Hazard Pictogram(s)	Hazard Statement(s) and Risk (R) Phrase(s)
quartz	< 0,1	14808-60-7	238-455-4		Carc. 1A, H350; STOT RE 2, H373

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures

General Information: No special measures required.

After Inhalation: Supply fresh air; consult doctor in case of complaints.

After Skin Contact: Brush off loose particles from skin. Wash with soap and water. If skin irritation is experienced, consult a doctor.

After Eye Contact: Remove contact lenses if worn. Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After Swallowing: Rinse out mouth and then drink plenty of water. Do not induce vomiting; call for medical help immediately.

4.2 Most Important Symptoms And Effects, Both Acute And Delayed: Slight irritant effect on eyes.

Hazards: No further relevant information available.

4.3 Indication Of The Immediate Medical Attention And Special Treatment Needed: No further relevant information available.

SECTION 5: FIRE-FIGHTING MEASURES

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1	**Personal Precautions, Protective Equipment And Emergency Procedures**	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
6.2	**Environmental Precautions**	No special measures required.
6.3	**Methods And Material For Containment And Cleaning Up**	Pick up mechanically. Send for recovery or disposal in suitable receptacles. Dispose contaminated material as waste according to item 13.
6.4	**Reference To Other Sections**	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

7.1	**Precautions For Safe Handling**	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.
	Information About Fire – and explosion protection	No special measures required.
7.2	**Conditions For Safe Storage, Including Any Incompatibilities:**	
	Requirements to be Met by Storerooms and Receptacles:	No special requirements.
	Information About Storage in One Common Storage Facility:	Store away from oxidizing agents. Store away from foodstuffs. Do not store together with acids.
	Further information about storage conditions:	None.
7.3	**Specific End Use(s)**	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

Ingredients with limit values that require monitoring at the workplace:			
aluminium oxide	1344-28-1	PEL (USA)	Long-term value: 15*; 15** mg/m³ *Total dust; ** Respirable fraction
		REL (USA)	Long-term value: 10* 5** mg/m³

			as Al*Total dust**Respirable/pyro powd./welding f.
		TLV (USA)	Long-term value: 1* mg/m³ as Al; *as respirable fraction
		EL (Canada)	Long-term value: 1,0 mg/m³ respirable, as Al
		EV (Canada)	Long-term value: 10 mg/m³ total dust
zirconium dioxide	1314-23-4	PEL (USA)	Long-term value: 5 mg/m³ as Zr
		REL (USA)	Short-term value: 10 mg/m³ Long-term value: 5 mg/m³ as Zr
		TLV (USA)	Shorth-term value: 10 mg/m³ Long-term value: 5 mg/m³ as Zr
manganese dioxide	1313-13-9	PEL (USA)	Ceiling limit: 5 mg/m³ as Mn
		REL (USA)	Short-term value: 3 mg/m³ Long-term value: 1 mg/m³ as Mn
		TLV (USA)	Long-term value: 0,02* 0,1* mg/m³ as Mn; *respirable **inhalable fraction
		EL (Canada)	Long-term value: 0,2 mg/m³ as Mn; R
diiron trioxide / iron (III) oxide	1309-37-1	PEL (USA)	Long-term value: 10* 15** 5*** mg/m³ *Fume; Rouge: **Total dust, ***respirable
		REL (USA)	Long-term value: 5 mg/m³ Dust & fume, as Fe
		TLV (USA)	Long-term value: 5* mg/m³ *as respirable fraction
		EL (Canada)	Short-term value: 10** mg/m³ Long-term value: 5* 10*** 3**** mg/m³ *dust & fume**fume; Rouge: ***total dust****resp.
		EV (Canada)	Long-term value: 5* 10** mg/m³ *respirable, including Rouge;**total dust
titanium dioxide	13463-67-7	PEL (USA)	Long-term value: 15* mg/m³ *total dust
		REL (USA)	See Pocket Guide App. A
		TLV (USA)	Long-term value: 10 mg/m³ withdrawn from NIC
		EL (Canada)	Long-term value: 10* 3** mg/m³ *total dust;**respirable fraction; IARC 2B
		EV (Canada)	Long-term value: 10 mg/m³ total dust

DNELs No further relevant information available.
PNECs No further relevant information available.
Additional information: The lists valid during the making were used as basis.

8.2	**Exposure Controls**	
8.2.2	**Personal Protective Equipment:**	
	General protective and hygienic measures:	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.
	Respiratory Protection	Use suitable respiratory protective device when high concentrations are present. For spills, respiratory protection may be advisable.

	Eye Protection	Wear safety glasses.
	Protection of Hands	Wear protective gloves.
	Body Protection	Not required under normal conditions of use. Protection may be required for spills.
	Limitation and supervision of exposure into the environment	No further relevant information available.
	Risk Management Measures	No further relevant information available. See Section 7 for additional information.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information On Basic Physical And Chemical Properties

Appearance	Solid	Color	Brown
Odor	Odourless	Odor Threshold (ppm)	Not available
Melting Point (°C) / Freezing Point (°C)	>2012°F/ >1100 °C	Boiling Point/Boiling Range (°C)	>3632 °F/ >2000 °C
Flash Point (°C)	No Data	Explosive Limit Ranges	Not available
Auto Ignition Temperature (°C)	Not available	Decomposition Temperature (°C)	Not available
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)	2,5 g/cm³
Solubility (Water)	Insoluble	Solubility (Other)	Not available
Partition Coefficient (N-Octanol/Water)	Not available	Viscosity (mPa.s)	Not available

9.2 Other Information Volatile Organic Chemical (VOC) Content – Not Available.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

10.2 Chemical Stability

Thermal Decomposition / conditions to be avoided: No decomposition if used according to specifications.

10.3 Possibility of Hazardous Reactions Reacts with strong acids and alkali. Reacts with strong oxidising agents.

10.4 Conditions To Avoid Prevent formation of dust. Store away from oxidising agents. Avoid acids.

10.5 Incompatible Materials No further relevant information available.

10.6 Hazardous Decomposition Product(s) Possible in traces.

SECTION 11: TOXICOLOGICAL INFORMATION

LD/LC50 values relevant for classification:			
1309-37-1 diiron trioxide / iron (III) oxide			
Oral	LD50	>5000 mg/kg	(rat)

11.1 Information on Toxicological Effects

Acute toxicity:

Primary Irritant Effect:	
On the skin:	No irritant effect.
On the eye:	Slight irritant effect on eyes.
Sensitisation:	No sensitizing effects known.
CMR effects (carcinogenity, mutagenicity, and toxicity for reproduction):	Contains known or suspect carcinogens when inhaled. Product is in non-inhalable form and is nonclassifiable as a carcinogen.

SECTION 12: ECOLOGICAL INFORMATION

12.1	**Toxicity**	No data
	Aquatic toxicity:	The product contains materials that are harmful to the environment.
12.2	**Persistence and Degradability**	No further relevant information available.
12.3	**Bioaccumulative Potential**	No further relevant information available.
12.4	**Mobility in Soil**	No further relevant information available.
	Additional ecological information:	
	General notes:	Not known to be hazardous to water.
12.5	**Results of PBT and vPvB Assessment**	**PBT:** Not applicable. **vPvB:** Not applicable.
12.6	**Other Adverse Effects**	No further relevant information available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1	**Waste Treatment Methods**	
	Recommendation	Smaller quantities can be disposed of with household waste. Contact manufacturer for recycling information. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.
	Uncleaned Packaging:	
	Recommendation:	Disposal must be made according to official regulations.

SECTION 14: TRANSPORT INFORMATION

Land Transport (ADR/RID) (c)(d)		**Land Transport (Within USA) (b)(d)**	
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
Sea Transport (IMDG) (c)		**Air Transport (ICAO/IATA) (c) (d)**	
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

(b)- ORM-D may be applicable within the USA for package sizes less than 30kg.
(c)– Consult with transport provider.
(d)– Check relevant regulations for Special Provisions.
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

SECTION 15: REGULATORY INFORMATION

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

USA

SARA

Section 355 (extremely hazardous substances)	None of the ingredients are listed.	
SARA 313 (Specific toxic chemical listings)	Aluminum oxide listing is only relevant to fibrous forms and is not applicable to the product as supplied. 1313-13-9 manganese dioxide	
TSCA (Toxic Substance Control Act)	All ingredients are listed.	
Proposition 65 (California):		
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 14808-60-7 quartz	
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.	
Carcinogenic Categories		
EPA (Environmental Protection Agency)	1313-13-9 manganese dioxide	D
IARC (International Agency for Research on Cancer)	7631-86-9 silicon dioxide, chemically prepared 1309-37-1 diiron trioxide / iron (III) oxide 13463-67-7 titanium dioxide 14808-60-7 quartz	3 3 2B 1
TLV (Threshold Limit Value established by ACGIH)	1344-28-1 aluminium oxide 1309-37-1 diiron trioxide / iron (III) oxide 13463-67-7 titanium dioxide	A4 A4 A4
MAK (German Maximum Workplace Concentration)	1344-28-1 aluminium oxide 13463-67-7 titanium dioxide 14808-60-7 quartz	2 3A 1
NIOSH-Ca (National Institute for Occupational Safety and Health)	13463-67-7 titanium dioxide	

Canada

Canadian Domestic Substances List (DSL)	All ingredients are listed.
Other regulations, limitations and prohibitive regulations	
Substances of very high concern (SVHC) according to REACH, Article 57	None of the ingredients are listed.

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 of our products would be considered non-combustible, the overall airborne environment should be considered when determining the need for mitigation from the potential hazard. Consult recognized experts when necessary in order to determine any possible hazard.
  Please read the SDS for specific information concerning these hazards, and contact us with any further questions. We appreciate your continued business.

Relevant phrases
H302 Harmful if swallowed.
H332 Harmful if inhaled.
H373 May cause damage to organs through prolonged or repeated exposure.

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 Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Acute Tox. 4: Acute toxicity, Hazard Category 4
STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

Sources
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