Safety data sheet
According to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and US GHS
Revision: 11.02.2015

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

1.1 Product Identifier Duramedia 10, 20, F, FB, PK, PK-20, Duralite II
GHS Product Identifier Duramedia 10, 20, F, FB, PK, PK-20, Duralite II
Chemical Name Codierite and Alumina; Fired Ceramic Mass Finishing Media
Trade Name See Product Identifier
CAS No. Mixture
EINECS No. Mixture
REACH Registration No. Not available

1.2 Relevant Identified Uses Of The Substance Or Mixture And Uses Advised Against
No further relevant information available.
Application of the substance / the mixture
Preparation of ceramic parts and coatings

1.3 Details Of The Supplier Of The Safety Data Sheet
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), 813-248-0885 (International)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification Of The Substance Or Mixture
2.1.1 Classification according to Regulation (EC) No. 1272/2008
The product is not classified as hazardous according to the CLP regulation.
The product is not classified as hazardous according to OSHA GHS regulations within the United States.

Information concerning particular hazards for human and environment:
The product does not have to be labelled due to the calculation procedure of the “General Classification guideline for preparations of the EU” in the latest valid version.
Classification system:
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

2.2 Label Elements
2.2.1 Labelling according to Regulation (EC) No 1272/2008 – Not Regulated

Hazard Pictogram(s) Not Regulated
Signal Word(s) Not Regulated

Hazard-determining components of labelling: None
Hazard Not Regulated
Statement(s)
Hazard description:
WHMIS-symbols: Not hazardous under WHMIS.
NFPA ratings
(scale 0 - 4)
Health = 0
Fire = 0
Reactivity = 0
HMIS-ratings
(scale 0 - 4)
Health = 0
Fire = 0
Reactivity = 0
HMIS Long Term Health Hazard 13463-67-7 titanium dioxide
Safety data sheet
According to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and US GHS
Duramedia 10, 20, F, FB, PK, PK-20, Duralite II (See Page 1)

2.3 Substances
Other Hazards
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:

<table>
<thead>
<tr>
<th>Hazardous Ingredient(s)</th>
<th>%W/W</th>
<th>CAS No.</th>
<th>EC No.</th>
<th>Index No.</th>
<th>Hazard Pictogram(s)</th>
<th>Hazard Statement(s) and Risk (R) Phrase(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>aluminium oxide</td>
<td>10-40</td>
<td>1344-28-1</td>
<td>215-691-6</td>
<td>NA</td>
<td>None</td>
<td>substance with a Community workplace exposure limit</td>
</tr>
<tr>
<td>titanium dioxide</td>
<td>0-2</td>
<td>13463-67-7</td>
<td>236-675-5</td>
<td>NA</td>
<td>None</td>
<td>substance with a Community workplace exposure limit</td>
</tr>
</tbody>
</table>

Dangerous Components (Alternative Classifications):

<table>
<thead>
<tr>
<th>Hazardous Ingredient(s)</th>
<th>%W/W</th>
<th>CAS No.</th>
<th>EC No.</th>
<th>Hazard Pictogram(s) and Hazard Statement(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>titanium dioxide</td>
<td>0-2</td>
<td>13463-67-7</td>
<td>236-675-5</td>
<td>Carc. 2, H351</td>
</tr>
</tbody>
</table>

Additional information: For the wording of the listed risk phrases refer to section 16.

Notable Trace Components (≤ 0.1% w/w):

<table>
<thead>
<tr>
<th>Hazardous Ingredient(s)</th>
<th>%W/W</th>
<th>CAS No.</th>
<th>EC No.</th>
<th>Hazard Pictogram(s) and Hazard Statement(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>cristobalite</td>
<td>≤0,1</td>
<td>14464-46-1</td>
<td>238-455-4</td>
<td>Xn R48/20 Carc. 1A, H350; STOT RE 2, H373</td>
</tr>
</tbody>
</table>

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: Wash with soap and water. Brush off loose particles from skin. If skin irritation continues, 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 Hazards

Slight irritant effect on eyes.

4.3 Indication Of The Immediate Medical Attention And Special Treatment Needed

No further relevant information available.
Safety data sheet

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

Duramedia 10, 20, F, FB, PK, PK-20, Duralite II (See Page 1)

SECTION 5: FIRE-FIGHTING MEASURES

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

<table>
<thead>
<tr>
<th>6.1 Personal Precautions, Protective Equipment And Emergency Procedures</th>
<th>Avoid formation of dust. For large spills, use respiratory protective device against the effects of fumes/dust/aerosol. For large spills, wear protective clothing. Ensure adequate ventilation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.2 Environmental Precautions</td>
<td>No special measures required.</td>
</tr>
<tr>
<td>6.3 Methods And Material For Containment And Cleaning Up</td>
<td>Pick up mechanically. Clean the affected area carefully; suitable cleaners are: Send for recovery or disposal in suitable receptacles.</td>
</tr>
<tr>
<td>6.4 Reference To Other Sections</td>
<td>See Section 7 for information on safe handling.</td>
</tr>
<tr>
<td></td>
<td>See Section 8 for information on personal protection equipment.</td>
</tr>
<tr>
<td></td>
<td>See Section 13 for disposal information.</td>
</tr>
</tbody>
</table>

SECTION 7: HANDLING AND STORAGE

<table>
<thead>
<tr>
<th>7.1 Precautions For Safe Handling</th>
<th>Any unavoidable deposit of dust must be regularly removed. Use only in well ventilated areas. Prevent formation of dust. Do not dry clean dust covered objects and floors. Wash thoroughly with plenty of water.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information About Fire – and explosion protection</td>
<td>No special measures required.</td>
</tr>
<tr>
<td>7.2 Conditions For Safe Storage, Including Any Incompatibilities:</td>
<td>No special requirements.</td>
</tr>
<tr>
<td>Requirements to be Met by Storerooms and Receptacles:</td>
<td></td>
</tr>
<tr>
<td>Information About Storage in One Common Storage Facility:</td>
<td></td>
</tr>
<tr>
<td>Further information about storage conditions:</td>
<td></td>
</tr>
<tr>
<td>7.3 Specific End Use(s)</td>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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

8.1 Control Parameters

<table>
<thead>
<tr>
<th>Ingredients with limit values that require monitoring at the workplace:</th>
<th>PEL (USA)</th>
<th>Long-term value: 15&quot; 15** mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>aluminium oxide</td>
<td>1344-28-1</td>
<td>*total dust **respirable fraction</td>
</tr>
<tr>
<td></td>
<td>REL (USA)</td>
<td>Long-term value: 10&quot; 5** mg/m³</td>
</tr>
</tbody>
</table>
**Safety data sheet**

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

**Duramedia 10, 20, F, FB, PK, PK-20, Duralite II (See Page 1)**

<table>
<thead>
<tr>
<th>titanium dioxide</th>
<th>13463-67-7</th>
</tr>
</thead>
</table>

**TLV (USA)**: Long-term value: 1 mg/m³ as Al; 1 mg/m³ respirable as Al

**EL (Canada)**: Long-term value: 10 mg/m³ total dust

**EV (Canada)**: Long-term value: 10 mg/m³ total dust

**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 mg/m³ total dust; respirable fraction; IARC 2B

**EV (Canada)**: Long-term value: 10 mg/m³ total dust

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**DNELs** No further relevant information available.

**PNECs** No further relevant information available.

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

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**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. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

**Respiratory Protection** Use suitable respiratory protective device when high concentrations are present. For spills, respiratory protection may be advisable.

**Eye Protection** Safety glasses.

**Protection of Hands** Wear protective gloves against mechanical hazards.

**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** See Section 7 for additional information. No further relevant information available.

---

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>9.1 Information On Basic Physical And Chemical Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
</tr>
<tr>
<td><strong>Odor</strong></td>
</tr>
<tr>
<td><strong>Melting Point (°C) / Freezing Point (°C)</strong></td>
</tr>
<tr>
<td><strong>Flash Point (°C)</strong></td>
</tr>
<tr>
<td><strong>Auto Ignition Temperature (°C)</strong></td>
</tr>
<tr>
<td><strong>Explosive Properties</strong></td>
</tr>
<tr>
<td><strong>Flammability (Solid, Gas)</strong></td>
</tr>
<tr>
<td><strong>Color</strong></td>
</tr>
<tr>
<td><strong>Odor Threshold (ppm)</strong></td>
</tr>
<tr>
<td><strong>Boiling Point/Boiling Range (°C)</strong></td>
</tr>
<tr>
<td><strong>Explosive Limit Ranges</strong></td>
</tr>
<tr>
<td><strong>Decomposition Temperature (°C)</strong></td>
</tr>
<tr>
<td><strong>Oxidizing Properties</strong></td>
</tr>
<tr>
<td><strong>Ph (Value)</strong></td>
</tr>
</tbody>
</table>
Safety data sheet 

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

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Duramedia 10, 20, F, FB, PK, PK-20, Duralite II (See Page 1) 

<table>
<thead>
<tr>
<th>Evaporation Rate</th>
<th>Vapor Pressure (mm Hg)</th>
<th>Not available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor Density (Air=1)</td>
<td>Density (g/ml)</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility (Water)</td>
<td>Solubility (Other)</td>
<td>Not available</td>
</tr>
<tr>
<td>Partition Coefficient (N-Octanol/Water)</td>
<td>Viscosity (mPa.s)</td>
<td>Not available</td>
</tr>
</tbody>
</table>


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.
10.4 Conditions To Avoid
Store away from oxidising agents. Prevent formation of dust.
10.5 Incompatible Materials
No further relevant information available.
10.6 Hazardous Decomposition Product(s)
Possible in traces.

SECTION 11: TOXICOLOGICAL INFORMATION

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.
Additional toxicological information:
The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version. When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.
CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):
Contains known or suspect carcinogens when inhaled. Product is in non-inhalable form and is non-classifiable as a carcinogen.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity
Aquatic toxicity: No further relevant information available.
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
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: Contact waste processors for recycling information. Smaller quantities can
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According to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and US GHS

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be disposed of with household waste. 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

<table>
<thead>
<tr>
<th>Land Transport (ADR/RID) (c)(d)</th>
<th>Land Transport (Within USA) (b)(d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN Number</td>
<td>UN Number</td>
</tr>
<tr>
<td>Proper Shipping Name</td>
<td>Proper Shipping Name</td>
</tr>
<tr>
<td>Transport Hazard Class(es)</td>
<td>Transport Hazard Class(es)</td>
</tr>
<tr>
<td>Packing Group</td>
<td>Packing Group</td>
</tr>
<tr>
<td>Hazard Label(s)</td>
<td>Hazard Label(s)</td>
</tr>
<tr>
<td>Environmental Hazards</td>
<td>Environmental Hazards</td>
</tr>
<tr>
<td>Special Precautions For User</td>
<td>Special Precautions For User</td>
</tr>
<tr>
<td>Sea Transport (IMDG) (c)</td>
<td>Air Transport (ICAO/IATA) (c) (d)</td>
</tr>
<tr>
<td>UN Number</td>
<td>UN Number</td>
</tr>
<tr>
<td>Proper Shipping Name</td>
<td>Proper Shipping Name</td>
</tr>
<tr>
<td>Transport Hazard Class(es)</td>
<td>Transport Hazard Class(es)</td>
</tr>
<tr>
<td>Packing Group</td>
<td>Packing Group</td>
</tr>
<tr>
<td>Marine Pollutant</td>
<td>Marine Pollutant</td>
</tr>
<tr>
<td>Special Precautions For User</td>
<td>Special Precautions For User</td>
</tr>
</tbody>
</table>

(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

United States (USA)

SARA

Section 355 (extremely hazardous substances) None of the ingredients are listed.
SARA 313 (Specific toxic chemical listings) 1344-28-1 aluminium oxide
TSCA (Toxic Substance Control Act) All ingredients are listed.

Proposition 65 (California):

Chemicals known to cause cancer: Reference to Titanium Dioxide is based on unbound respirable particles and is 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.

Carcinogenic Categories

EPA (Environmental Protection Agency) None of the ingredients are listed.
IARC (International Agency for Research on 13463-67-7 titanium dioxide

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Duramedia 10, 20, F, FB, PK, PK-20, Duralite II (See Page 1)

<table>
<thead>
<tr>
<th>Cancer)</th>
<th>TLV (Threshold Limit Value established by ACGIH)</th>
<th>1344-28-1 aluminium oxide A4</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAK (German Maximum Workplace Concentration)</td>
<td>13463-67-7 titanium dioxide A4</td>
<td></td>
</tr>
<tr>
<td>NIOSH-Ca (National Institute for Occupational Safety and Health) Canada</td>
<td>1344-28-1 aluminium oxide 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13463-67-7 titanium dioxide 3A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14464-46-1 cristobalite 1</td>
<td></td>
</tr>
</tbody>
</table>

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

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, 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.

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)

Sources
SDS Prepared by:
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Website: www.chemtelinc.com