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

1.1 Product Identifier | Duramedia 50, Duramedia SC, Duralite II-S
GHS Product Identifier | Duramedia 50, Duramedia SC, Duralite II-S
Chemical Name | Codierite and Silicon Carbide; 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
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), 813-248-0585 (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.

2.1.2 Classification according to Directive 67/548/EEC & Directive 1999/45/EC
Not applicable

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 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.

<table>
<thead>
<tr>
<th>Hazard Pictogram(s)</th>
<th>Not Regulated</th>
<th>Signal Word(s)</th>
<th>Not Regulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard-determining components of labelling:</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hazard Statement(s)</td>
<td>Not Regulated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Precautionary Statement(s)</td>
<td>Not Regulated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hazard description:</td>
<td>Not hazardous under WHMIS.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NFPA ratings (scale 0 - 4)</td>
<td>Health = 0, Fire = 0, Reactivity = 0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Safety data sheet

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

Duramedia 50, Duramedia SC, Duralite II-S (See Page 1)

2.3 Other Hazards

HMIS Long Term Health Hazard
Substances

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.

<table>
<thead>
<tr>
<th>Hazardous Ingredient(s)</th>
<th>%W/W</th>
<th>CAS No.</th>
<th>EC No.</th>
<th>REACH Registration No.</th>
<th>Index No.</th>
<th>Hazard Pictogram(s) and Hazard Statement(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>silicon carbide</td>
<td>3-10</td>
<td>409-21-2</td>
<td>206-991-8</td>
<td>NA</td>
<td>NA</td>
<td>None substance with a Community workplace exposure limit</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>REACH Registration 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>NA</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: Provide fresh air; consult doctor in case of complaints.

After Skin Contact: Brush off loose particles from skin. Wash with soap and water.

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

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
For large spills, use respiratory protective device against the effects of fumes/dust/aerosol. Avoid formation of dust. Wear protective equipment.

6.2 Environmental Precautions
Keep unprotected persons away. Ensure adequate ventilation

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
Use only in well ventilated areas. Do not dry clean dust covered objects and floors.

Information About Fire – and explosion protection
Wash thoroughly with plenty of water. Any unavoidable deposit of dust must be regularly removed. Prevent formation of dust.

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:
Keep container tightly sealed.

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

<table>
<thead>
<tr>
<th>Ingredients with limit values that require monitoring at the workplace:</th>
</tr>
</thead>
<tbody>
<tr>
<td>silicon carbide</td>
</tr>
<tr>
<td></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 50, Duramedia SC, Duralite II-S (See Page 1)

<table>
<thead>
<tr>
<th>*total dust **respirable fraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLV (USA) Long-term value: $10^3 \times mn/m^3$ fibrous dust: 0.1 f/cc; nonfibrous: *inh., **resp.</td>
</tr>
<tr>
<td>EL (Canada) Long-term value: $10^3 \times mn/m^3$ *inhalable; **respirable</td>
</tr>
<tr>
<td>EV (Canada) Long-term value: $10^3 \times mn/m^3$, 0.1f/cc*** ppm nonfibrous: *inh., **resp.; ***fibrous, resp.</td>
</tr>
</tbody>
</table>

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

Personal protective equipment:

General protective and hygienic measures:

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. Do not inhale dust / smoke / mist. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes. Avoid close or long term contact with the skin.

**Respiratory Protection**

Not required under normal conditions of use. 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**

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

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information On Basic Physical And Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Solid</td>
</tr>
<tr>
<td>Odor</td>
<td>Odourless</td>
</tr>
<tr>
<td>Melting Point (°C) /</td>
<td>&gt;2012°F / &gt;1100 °C</td>
</tr>
<tr>
<td>Freezing Point (°C)</td>
<td></td>
</tr>
<tr>
<td>Flash Point (°C)</td>
<td>No Data</td>
</tr>
<tr>
<td>Auto Ignition Temperature (°C)</td>
<td>370 °C</td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>None</td>
</tr>
<tr>
<td>Flammability (Solid, Gas)</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Density (Air=1)</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility (Water)</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>Not available</td>
</tr>
<tr>
<td>Ph (Value)</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Pressure (mm Hg)</td>
<td>Not available</td>
</tr>
<tr>
<td>Density (g/ml)</td>
<td>2.77 g/cm³</td>
</tr>
<tr>
<td>Solubility (Other)</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity (mPa.s)</td>
<td>Not available</td>
</tr>
</tbody>
</table>

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
No further relevant information available.

10.5 Incompatible Materials
No further relevant information available.

10.6 Hazardous Decomposition Product(s)
Possible in traces.

SECTION 11: TOXICOLOGICAL INFORMATION

### Substance Information

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS No.</th>
<th>LD₅₀ (Oral, Rat)</th>
<th>LD₅₀ (Dermal, Rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>silicon dioxide, chemically prepared</td>
<td>7631-86-9</td>
<td>10000 mg/kg</td>
<td>5000 mg/kg</td>
</tr>
</tbody>
</table>

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 suspect carcinogen in less than reportable quantities.

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 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
Contact manufacturer for recycling information. The user of this material has the responsibility to dispose of unused material, residues and containers in
Safety data sheet
According to 1907/2006/EC (REACH), 1272/2008/EC (CLP),
and US GHS
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Duramedia 50, Duramedia SC, Duralite II-S (See Page 1)

Uncleaned Packaging:
Recommendation: 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.
Recommended cleansing agents: Disposal must be made according to official regulations. Water, if necessary together with cleansing agents.

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>None</td>
<td>None</td>
</tr>
<tr>
<td>Proper Shipping Name</td>
<td>Proper Shipping Name</td>
</tr>
<tr>
<td>Not classified as dangerous for transport.</td>
<td>Not classified as dangerous for transport.</td>
</tr>
<tr>
<td>Transport Hazard Class(es)</td>
<td>Transport Hazard Class(es)</td>
</tr>
<tr>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Packing Group</td>
<td>Packing Group</td>
</tr>
<tr>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Hazard Label(s)</td>
<td>Hazard Label(s)</td>
</tr>
<tr>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Environmental Hazards</td>
<td>Environmental Hazards</td>
</tr>
<tr>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Special Precautions For User</td>
<td>Special Precautions For User</td>
</tr>
<tr>
<td>None</td>
<td>None</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>None</td>
<td>None</td>
</tr>
<tr>
<td>Proper Shipping Name</td>
<td>Proper Shipping Name</td>
</tr>
<tr>
<td>Not classified as dangerous for transport.</td>
<td>Not classified as dangerous for transport.</td>
</tr>
<tr>
<td>Transport Hazard Class(es)</td>
<td>Transport Hazard Class(es)</td>
</tr>
<tr>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Packing Group</td>
<td>Packing Group</td>
</tr>
<tr>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Marine Pollutant</td>
<td>Marine Pollutant</td>
</tr>
<tr>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Special Precautions For User</td>
<td>Special Precautions For User</td>
</tr>
<tr>
<td>None</td>
<td>None</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

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: 14464-46-1 cristobalite
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 Cancer) 7631-86-9 silicon dioxide, chemically prepared 3
Duramedia 50, Duramedia SC, Duralite II-S

### TLV (Threshold Limit Value established by ACGIH)
- 1344-28-1 aluminium oxide
- 409-21-2 silicon carbide

### MAK (German Maximum Workplace Concentration)
- 1344-28-1 aluminium oxide: 2
- 409-21-2 silicon carbide: 2
- 14464-46-1 cristobalite: 1

### NIOSH-Ca (National Institute for Occupational Safety and Health)
- None of the ingredients are listed.

### 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%)
- 7631-86-9 silicon dioxide, chemically prepared
- 1344-28-1 aluminium oxide

### Other regulations, limitations and prohibitive regulations
- 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.

**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
- 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

**Sources**
- SDS Prepared by:
Duramedia 50, Duramedia SC, Duralite II-S (See Page 1)

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Website: www.chemtelinc.com