SECTION 1. IDENTIFICATION

Product name: MasterFlow 648 Low Dust Part C
Product code: 000000000050456267 000000000050456267

Manufacturer or supplier’s details
Company name of supplier: Master Builders-Construction Systems US, LLC
Address: 23700 CHAGRIN BLVD
Beachwood OH 44122
Emergency telephone: ChemTel: +1-813-248-0585 USA: +1-800-255-3924 Contract Number MIS9240420

Recommended use of the chemical and restrictions on use
Recommended use: Product for construction chemicals
Restrictions on use: Reserved for industrial and professional use.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200
Carcinogenicity (Inhalation): Category 1A
Specific target organ toxicity - repeated exposure (Inhalation): Category 1 (Lungs)
Specific target organ toxicity - repeated exposure (Inhalation): Category 2 (Kidney, Immune system)

GHS label elements
Hazard pictograms:

Signal Word: Danger
Hazard Statements:
H350 May cause cancer by inhalation.
H372 Causes damage to organs (Lungs) through prolonged or repeated exposure if inhaled.
H373 May cause damage to organs (Kidney, Immune system) through prolonged or repeated exposure if inhaled.

Precautionary Statements:
Prevention:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/ protective clothing/ eye protection/
face protection.

Response:
P308 + P313 IF exposed or concerned: Get medical advice/attention.

Storage:
P405 Store locked up.

Disposal:
P501 Dispose of contents/container to an approved waste disposal plant.

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature: modified cement mortar

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>calcium oxide</td>
<td>1305-78-8</td>
<td>&gt;= 0 - &lt; 0.2</td>
</tr>
<tr>
<td>crystalline silica</td>
<td>14808-60-7</td>
<td>&gt;= 50 - &lt; 100</td>
</tr>
<tr>
<td>Barium sulfate</td>
<td>7727-43-7</td>
<td>&gt;= 0 - &lt; 15</td>
</tr>
<tr>
<td>Quartz (SiO2)</td>
<td>14808-60-7</td>
<td>&gt;= 0 - &lt; 0.2</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

General advice:
First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing. Do not leave the victim unattended.

If inhaled:
Keep patient calm, remove to fresh air, seek medical attention. If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.

In case of skin contact:
Immediately wash thoroughly with soap and water, seek medical attention.

In case of eye contact:
Wash affected eyes for at least 15 minutes under running water with eyelids held open. Remove contact lenses. Protect unharmed eye. If eye irritation persists, consult a specialist.

If swallowed:
Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention. Keep respiratory tract clear. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

Most important symptoms:
None known.
and effects, both acute and delayed
Notes to physician : Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Foam
                                   Water spray
                                   Dry powder
                                   Carbon dioxide (CO2)

Unsuitable extinguishing media : water jet

Hazardous combustion products : harmful vapours
                                nitrogen oxides
                                fumes/smoke
                                carbon black
                                carbon oxides

Further information : Standard procedure for chemical fires.
                       Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Avoid dust formation.

Environmental precautions : Contain contaminated water/firefighting water.
                          Do not discharge into drains/surface waters/groundwater.

Methods and materials for containment and cleaning up : Pick up and arrange disposal without creating dust.
                                                      Sweep up and shovel.
                                                      Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Provide appropriate exhaust ventilation at places where dust is formed.

Advice on safe handling : For personal protection see section 8.
                        Smoking, eating and drinking should be prohibited in the application area.

Conditions for safe storage : Electrical installations / working materials must comply with the technological safety standards.

Further information on storage conditions : Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame.
                                         Protect from direct sunlight.

Materials to avoid : No applicable information available.
                   No materials to be especially mentioned.
Further information on storage stability: No decomposition if stored and applied as directed.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Ingredients with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>calcium oxide</td>
<td>1305-78-8</td>
<td>TWA value</td>
<td>2 mg/m³</td>
<td>ACGIHTLV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>REL value</td>
<td>2 mg/m³</td>
<td>NIOSH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PEL</td>
<td>5 mg/m³</td>
<td>29 CFR 1910.1000 (Table Z-1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA value</td>
<td>5 mg/m³</td>
<td>29 CFR 1910.1000 (Table Z-1-A)</td>
</tr>
<tr>
<td>Barium sulfate</td>
<td>7727-43-7</td>
<td>TWA value (Inhalable fraction)</td>
<td>5 mg/m³</td>
<td>ACGIHTLV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>REL value (Respirable)</td>
<td>5 mg/m³</td>
<td>NIOSH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>REL value (Total)</td>
<td>10 mg/m³</td>
<td>NIOSH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PEL (Total dust)</td>
<td>15 mg/m³</td>
<td>29 CFR 1910.1000 (Table Z-1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PEL (Respirable fraction)</td>
<td>5 mg/m³</td>
<td>29 CFR 1910.1000 (Table Z-1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Inhalable particulate matter)</td>
<td>5 mg/m³</td>
<td>ACGIHTLV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Respirable)</td>
<td>5 mg/m³</td>
<td>NIOSH REL</td>
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<tr>
<td></td>
<td></td>
<td>TWA (total)</td>
<td>10 mg/m³</td>
<td>NIOSH REL</td>
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<td></td>
<td></td>
<td>TWA (total dust)</td>
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<td>OSHA Z-1</td>
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<tr>
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<td></td>
<td>TWA (respirable fraction)</td>
<td>5 mg/m³</td>
<td>OSHA Z-1</td>
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<tr>
<td></td>
<td></td>
<td>TWA (Total dust)</td>
<td>10 mg/m³</td>
<td>OSHA P0</td>
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<tr>
<td></td>
<td></td>
<td>TWA (respirable dust fraction)</td>
<td>5 mg/m³</td>
<td>OSHA P0</td>
</tr>
<tr>
<td>Quartz (SiO2)</td>
<td>14808-60-7</td>
<td>TWA value (Respirable fraction)</td>
<td>0.025 mg/m³</td>
<td>ACGIHTLV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA value</td>
<td>0.05 mg/m³</td>
<td>29 CFR</td>
</tr>
<tr>
<td>Respirable dust fraction</td>
<td>OSHA Action level</td>
<td>REL value</td>
<td>TWA (Respirable dust)</td>
<td>TWA (Respirable fraction)</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-------------------</td>
<td>-----------</td>
<td>-----------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>(Respirable dust)</td>
<td>0.025 mg/m³</td>
<td>0.05 mg/m³</td>
<td>0.05 mg/m³</td>
<td>0.05 mg/m³</td>
</tr>
</tbody>
</table>
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Date of first issue: 01/13/2021

Engineering measures
: No applicable information available.

Personal protective equipment

Respiratory protection
: Wear a NIOSH approved (or equivalent) particulate respirator if ventilation is inadequate to control dust.

Hand protection

Remarks
: Chemical resistant protective gloves Manufacturer’s directions for use should be observed because of great diversity of types.

Eye protection
: Safety glasses

Skin and body protection
: Protective suit

Protective measures

Avoid inhalation of dusts.
Wearing of closed work clothing is required additionally to the stated personal protection equipment.
Avoid exposure - obtain special instructions before use.
Handle in accordance with good building materials hygiene and safety practice.

Hygiene measures
: General industrial hygiene practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
: powder to fine granules

Color
: tan or grey

Odor
: mild

pH
: No data available

Melting point
: No applicable information available.

Boiling point
: No applicable information available.

Flash point
: No applicable information available.

Evaporation rate
: No applicable information available.

Flammability (solid, gas)
: No applicable information available.

Upper explosion limit / Upper flammability limit
: No applicable information available.

Lower explosion limit / Lower flammability limit
: No applicable information available.

Vapor pressure
: No applicable information available.

Relative vapor density
: No applicable information available.

Relative density
: No applicable information available.

Solubility(ies)

Water solubility
: No data available
Solubility in other solvents: No applicable information available.

Partition coefficient: n-octanol/water: No applicable information available.

Autoignition temperature: No applicable information available.

Decomposition temperature: No decomposition if stored and handled as prescribed/indicated.

Viscosity:
- Viscosity, dynamic: No applicable information available.
- Viscosity, kinematic: No applicable information available.

Oxidizing properties: not determined

Self-heating substances: No data available

Sublimation point: No applicable information available.

SECTION 10. STABILITY AND REACTIVITY

Reactivity: No decomposition if stored and applied as directed.

Chemical stability: No decomposition if stored and applied as directed.

Possibility of hazardous reactions:
- Stable under recommended storage conditions.
- No hazards to be specially mentioned.

Conditions to avoid: See SDS section 7 - Handling and storage.

Incompatible materials:
- Strong acids
- Strong bases
- Strong oxidizing agents
- Strong reducing agents

Hazardous decomposition products:
- No hazardous decomposition products if stored and handled as prescribed/indicated.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity
Not classified based on available information.

Product:

Acute oral toxicity: Remarks: No applicable information available.

Acute inhalation toxicity: Remarks: No applicable information available.

Acute dermal toxicity: Remarks: No applicable information available.

Skin corrosion/irritation
Not classified based on available information.

Serious eye damage/eye irritation
Not classified based on available information.
Respiratory or skin sensitization

Skin sensitization
Not classified based on available information.

Respiratory sensitization
Not classified based on available information.

Germ cell mutagenicity
Not classified based on available information.

Carcinogenicity
May cause cancer by inhalation.

Reproductive toxicity
Not classified based on available information.

STOT-single exposure
Not classified based on available information.

STOT-repeated exposure
Causes damage to organs (Lung) through prolonged or repeated exposure if inhaled. May cause damage to organs (Kidney, Immune system) through prolonged or repeated exposure if inhaled.

Aspiration toxicity
Not classified based on available information.

**Product:**
No aspiration hazard expected.

Further information

**Product:**
Remarks : The product has not been tested. The statement has been derived from the properties of the individual components.

### SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity
No data available

Persistence and degradability
No data available

Bioaccumulative potential

**Components:**

Barium sulfate:
Partition coefficient: n-octanol/water : Pow: 4.26
log Pow: 0.63
Method: other (calculated)
Mobility in soil
No data available

Other adverse effects

Product:
Additional ecological information : No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues : Dispose of in accordance with local authority regulations. Do not discharge into drains/surface waters/groundwater.
Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR
Not regulated as a dangerous good

IMDG-Code
Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

Domestic regulation

49 CFR
Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

California Prop. 65
WARNING: This product can expose you to chemicals including Quartz (SiO2), which is/are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

The ingredients of this product are reported in the following inventories:

DSL : All components of this product are on the Canadian DSL

TSCA : All chemical substances in this product are either listed as active on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

SECTION 16. OTHER INFORMATION

Further information
SAFETY DATA SHEET
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NFPA 704:
Health 1
Flammability 1
Instability 0
Special hazard

HMIS® IV:
HEALTH
FLAMMABILITY
PHYSICAL HAZARD

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "***" represents a chronic hazard, while the "/'" represents the absence of a chronic hazard.

Full text of other abbreviations
29 CFR 1910.1000 (Table Z-1-A): OSHA - Table Z-1-A (29 CFR 1910.1000)
29 CFR 1910.1000 (Table Z-1): OSHA - Table Z-1 (Limits for Air Contaminants) 29 CFR 1910.1000
ACGIH: USA. ACGIH Threshold Limit Values (TLV)
ACGIHTLV: American Conference of Governmental Industrial Hygienists - threshold limit values (US)
NIOSH: NIOSH Pocket Guide to Chemical Hazards (US)
NIOSH REL: USA. NIOSH Recommended Exposure Limits
OSHA CARC: OSHA Specifically Regulated Chemicals/Carcinogens
OSHA P0: USA, OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
OSHA Z-1: USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
OSHA Z-3: USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
29 CFR 1910.1000 (Table Z-1-A) / TWA value: Time Weighted Average (TWA):
29 CFR 1910.1000 (Table Z-1) / PEL: Permissible exposure limit
ACGIH / TWA: 8-hour, time-weighted average
ACGIHTLV / TWA value: Time Weighted Average (TWA):
NIOSH / REL value: Recommended exposure limit (REL):
NIOSH REL / TWA: Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
OSHA CARC / PEL: Permissible exposure limit (PEL)
OSHA P0 / TWA: 8-hour time weighted average
SAFETY DATA SHEET

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OSHA Z-1 / TWA : 8-hour time weighted average
OSHA Z-3 / TWA : 8-hour time weighted average

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50% of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SATD - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 01/13/2021

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