1. Identification

Product identifier used on the label

MasterFlow 678 PART C also MASTERFLOW 678DP PLUS GRT PTC

Recommended use of the chemical and restriction on use
Recommended use*: for industrial use only

* The “Recommended use” identified for this product is provided solely to comply with a Federal requirement and is not part of the seller’s published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:
BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

2. Hazards Identification


Classification of the product

<table>
<thead>
<tr>
<th>STOT RE</th>
<th>1</th>
<th>Specific target organ toxicity — repeated exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combustible Dust</td>
<td>Combustible Dust (1)</td>
<td>Combustible Dust</td>
</tr>
</tbody>
</table>

Label elements

Pictogram:
Signal Word: Danger

Hazard Statement: May form combustible dust concentration in air.

H372 Causes damage to organs (Lung) through prolonged or repeated exposure.

Precautionary Statements (Prevention):
P260 Do not breathe dust/gas/mist/vapours.
P270 Do not eat, drink or smoke when using this product.
P264 Wash with plenty of water and soap thoroughly after handling.

Precautionary Statements (Response):
P314 Get medical advice/attention if you feel unwell.

Precautionary Statements (Disposal):
P501 Dispose of contents/container to hazardous or special waste collection point.

3. Composition / Information on Ingredients


<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Content (W/W)</th>
<th>Chemical name</th>
</tr>
</thead>
<tbody>
<tr>
<td>14808-60-7</td>
<td>&gt;= 75.0 - &lt;= 100.0 %</td>
<td>crystalline silica</td>
</tr>
</tbody>
</table>

4. First-Aid Measures

Description of 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.

If inhaled:
Keep patient calm, remove to fresh air, seek medical attention.

If on skin:
Immediately wash thoroughly with soap and water, seek medical attention.

If in eyes:
Wash affected eyes for at least 15 minutes under running water with eyelids held open.

If swallowed:
Rinse mouth immediately and then drink plenty of water, induce vomiting, seek medical attention.
Most important symptoms and effects, both acute and delayed

Symptoms: No significant reaction of the human body to the product known.
Hazards: No applicable information available.

Indication of any immediate medical attention and special treatment needed

Note to physician
Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
foam, water spray, dry powder, carbon dioxide

Unsuitable extinguishing media for safety reasons:
water jet

Special hazards arising from the substance or mixture
Hazards during fire-fighting:
carbon dioxide, carbon monoxide, harmful vapours, nitrogen oxides, fumes/smoke, carbon black

Advice for fire-fighters
Protective equipment for fire-fighting:
Wear a self-contained breathing apparatus.

Further information:
Dusty conditions may ignite explosively in the presence of an ignition source causing flash fire.

6. Accidental release measures

Further accidental release measures:
Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Avoid the formation and build-up of dust - danger of dust explosion. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition.

Personal precautions, protective equipment and emergency procedures
Do not breathe dust. Wear eye/face protection. Use personal protective clothing. Handle in accordance with good building materials hygiene and safety practice.

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

Methods and material for containment and cleaning up
7. Handling and Storage

Precautions for safe handling
Protection against fire and explosion:
Avoid dust formation. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids (2013 Edition) for safe handling.

Conditions for safe storage, including any incompatibilities
No applicable information available.

Suitable materials for containers: tinned carbon steel (Tinplate)
Protect from temperatures below: 0 °C
PROTECT FROM FREEZING DURING THE COLD-SEASON (BELOW 40°F / 5°C ).

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

<table>
<thead>
<tr>
<th>Component</th>
<th>OSHA PEL</th>
<th>TWA value 2.4 millions of particles per cubic foot of air Respirable</th>
</tr>
</thead>
<tbody>
<tr>
<td>crystalline silica</td>
<td></td>
<td>The exposure limit is calculated from the equation, 250/(%SiO2+5), using a value of 100% SiO2. Lower percentages of SiO2 will yield higher exposure limits.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>TWA value 0.1 mg/m3 Respirable</th>
</tr>
</thead>
<tbody>
<tr>
<td>crystalline silica</td>
<td>The exposure limit is calculated from the equation, 10/(%SiO2+2), using a value of 100% SiO2. Lower percentages of SiO2 will yield higher exposure limits.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>TWA value 0.3 mg/m3 Total dust</th>
</tr>
</thead>
<tbody>
<tr>
<td>crystalline silica</td>
<td>The exposure limit is calculated from the equation, 30/(%SiO2+2), using a value of 100% SiO2. Lower percentages of SiO2 will yield higher exposure limits.</td>
</tr>
</tbody>
</table>

ACGIH TLV TWA value 0.025 mg/m3 Respirable fraction;

Advice on system design:
It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.
9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>powder</td>
</tr>
<tr>
<td>Odour</td>
<td>odourless</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No applicable information available.</td>
</tr>
<tr>
<td>Colour</td>
<td>amber</td>
</tr>
<tr>
<td>pH value</td>
<td>neutral, (as aqueous suspension)</td>
</tr>
<tr>
<td>Melting temperature</td>
<td>approx. &gt; 1,000 °C</td>
</tr>
<tr>
<td>boiling temperature</td>
<td>not applicable</td>
</tr>
<tr>
<td>Sublimation point</td>
<td>No applicable information available.</td>
</tr>
<tr>
<td>Flash point</td>
<td>Non-flammable</td>
</tr>
<tr>
<td>Flammability</td>
<td>not flammable</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No applicable information available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>No applicable information available.</td>
</tr>
<tr>
<td>Bulk density</td>
<td>approx. 1,800 - 2,400 kg/m³</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No applicable information available.</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>(20 °C) insoluble</td>
</tr>
<tr>
<td>Solubility (quantitative)</td>
<td>No applicable information available.</td>
</tr>
<tr>
<td>Solubility (qualitative)</td>
<td>No applicable information available.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No applicable information available.</td>
</tr>
<tr>
<td>Other Information</td>
<td>If necessary, information on other physical and chemical parameters is indicated in this section.</td>
</tr>
</tbody>
</table>

10. Stability and Reactivity

Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals:
Corrosive effects to metal are not anticipated.

Chemical stability
The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions
Conditions to avoid
See MSDS section 7 - Handling and storage.

Incompatible materials
strong acids, strong bases, strong oxidizing agents, strong reducing agents

Hazardous decomposition products

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

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity
Assessment of acute toxicity: Study scientifically not justified. The substance is inert.

Inhalation
No applicable information available.

Assessment other acute effects
No applicable information available.

Irritation / corrosion
Assessment of irritating effects: May cause mechanical irritation. No irritation is expected under intended use and appropriate handling.

Sensitization
Assessment of sensitization: The product has not been tested. The statement has been derived from the properties of the individual components.

Chronic Toxicity/Effects

Repeated dose toxicity
Assessment of repeated dose toxicity: Repeated exposure to small quantities may affect certain organs.
This product contains crystalline silica (quartz). Prolonged or repeated inhalation of respirable crystalline silica may result in silicosis.

Genetic toxicity
Assessment of mutagenicity: The chemical structure does not suggest a specific alert for such an effect. The product has not been tested. The statement has been derived from the properties of the individual components.

Carcinogenicity
Assessment of carcinogenicity: Contains a known carcinogen.
Information on: crystalline silica
Assessment of carcinogenicity: In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed. In long-term animal studies in which the substance was given by inhalation in high doses, a carcinogenic effect was observed. The substance and its compounds in the form of respirable dusts/aerosols is classified by the German MAK commission as a category 1 carcinogen (substances that cause cancer to humans). A carcinogenic effect cannot safely be ruled out. The inhalation uptake of the alveolar fraction of the fine dust may cause damage to the lungs. The International Agency for Research on Cancer (IARC) has classified this substance as a Group 1 (known) human carcinogen.

NTP listed carcinogen

Reproductive toxicity
Assessment of reproduction toxicity: The chemical structure does not suggest a specific alert for such an effect.

Teratogenicity
Assessment of teratogenicity: The chemical structure does not suggest a specific alert for such an effect.

Other Information
The product has not been tested. The statement has been derived from the properties of the individual components.

Symptoms of Exposure
No significant reaction of the human body to the product known.

12. Ecological Information

Toxicity
Aquatic toxicity
Assessment of aquatic toxicity: At the present state of knowledge, no negative ecological effects are expected. There is a high probability that the product is not acutely harmful to aquatic organisms. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Persistence and degradability
Assessment biodegradation and elimination (H2O)
Experience shows this product to be inert and non-degradable.

Bioaccumulative potential
Bioaccumulation potential
The product will not be readily bioavailable due to its consistency and insolubility in water.

Mobility in soil
Assessment transport between environmental compartments
Study scientifically not justified.
13. Disposal considerations

**Waste disposal of substance:**
Dispose of in accordance with local authority regulations. Do not discharge into drains/surface waters/groundwater.

**Container disposal:**
Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

14. Transport Information

**Land transport**
USDOT
Not classified as a dangerous good under transport regulations

**Sea transport**
IMDG
Not classified as a dangerous good under transport regulations

**Air transport**
IATA/ICAO
Not classified as a dangerous good under transport regulations

15. Regulatory Information

**Federal Regulations**

**Registration status:**
Chemical TSCA, US released / listed

**EPCRA 311/312 (Hazard categories):**
Fire (Combustible Dust); Chronic

**State regulations**

**CA Prop. 65:**
WARNING: THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

**NFPA Hazard codes:**
Health : 1 Fire: 1 Reactivity: 0 Special:

16. Other Information

**SDS Prepared by:**
BASF NA Product Regulations
SDS Prepared on: 2015/04/13
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