1. Identification

Product identifier used on the label

MasterFlow 678 PART B also MASTERFLOW 678DP PLUS GRT PTB

Recommended use of the chemical and restriction on use

* 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

Chemical family: No applicable information available.

2. Hazards Identification


Classification of the product

<table>
<thead>
<tr>
<th>Physical Hazard</th>
<th>Classification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Corr./Irrit.</td>
<td>1B</td>
<td>Skin corrosion/irritation</td>
</tr>
<tr>
<td>Eye Dam./Irrit.</td>
<td>1</td>
<td>Serious eye damage/eye irritation</td>
</tr>
<tr>
<td>Skin Sens.</td>
<td>1</td>
<td>Skin sensitization</td>
</tr>
<tr>
<td>Repr.</td>
<td>2 (fertility)</td>
<td>Reproductive toxicity</td>
</tr>
<tr>
<td>Aquatic Acute</td>
<td>1</td>
<td>Hazardous to the aquatic environment - acute</td>
</tr>
<tr>
<td>Aquatic Chronic</td>
<td>1</td>
<td>Hazardous to the aquatic environment - chronic</td>
</tr>
</tbody>
</table>
Safety Data Sheet
MasterFlow 678 PART B also MASTERFLOW 678DP PLUS
GRT PTB

Revision date : 2015/04/15  Page: 2/10
Version: 2.0  (30605840/SDS_GEN_US/EN)

Label elements

Pictogram:

Signal Word:
Danger

Hazard Statement:
H317  May cause an allergic skin reaction.
H361  Suspected of damaging fertility.
H314  Causes severe skin burns and eye damage.
H400  Very toxic to aquatic life.
H410  Very toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):
P280  Wear protective gloves/protective clothing/eye protection/face protection.
P273  Avoid release to the environment.
P260  Do not breathe dust or mist.
P201  Obtain special instructions before use.
P202  Do not handle until all safety precautions have been read and understood.
P272  Contaminated work clothing should not be allowed out of the workplace.
P264  Wash with plenty of water and soap thoroughly after handling.

Precautionary Statements (Response):
P305 + P351 + P338  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310  Immediately call a POISON CENTER or doctor/physician.
P303 + P361 + P352  IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water.
P304 + P340  IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P301 + P330 + P331  IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P391  Collect spillage.
P362 + P364  Take off contaminated clothing and wash before reuse.

Precautionary Statements (Storage):
P405  Store locked up.

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

Hazards not otherwise classified

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.
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>80-05-7</td>
<td>&gt;= 0.3 - &lt; 1.0 %</td>
<td>bisphenol A</td>
</tr>
<tr>
<td>90-72-2</td>
<td>&gt;= 7.0 - &lt; 10.0 %</td>
<td>2,4,6-tris(dimethylaminomethyl)phenol</td>
</tr>
<tr>
<td>112-57-2</td>
<td>&gt;= 10.0 - &lt; 15.0 %</td>
<td>3,6,9-triazaundecamethylene-1,11-diamine</td>
</tr>
<tr>
<td>71074-89-0</td>
<td>&gt;= 1.0 - &lt; 3.0 %</td>
<td>Phenol, bis[(dimethylamino)methyl]</td>
</tr>
<tr>
<td>68953-36-6</td>
<td>&gt;= 50.0 - &lt; 75.0 %</td>
<td>Fatty acids, tall-oil, reaction products with tetraethylenepentamine</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. Immediately administer a corticosteroid from a controlled/metered dose inhaler.

If on skin:
Immediately wash thoroughly with plenty of water, apply sterile dressings, consult a skin specialist.

If in eyes:
Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

If swallowed:
Do not induce vomiting. Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11. Further important symptoms and effects are so far not 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, nitrogen oxides, fumes/smoke, carbon black, corrosive gases/vapours

Advice for fire-fighters
Protective equipment for fire-fighting:
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:
The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Use personal protective clothing. Do not breathe vapour/aerosol/spray mists. 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
For small amounts: Pick up with inert absorbent material (e.g. sand, earth etc.). Dispose of contaminated material as prescribed.
For large amounts: Pump off product.

7. Handling and Storage

Precautions for safe handling
Keep away from sources of ignition - No smoking. Keep container tightly sealed. Handle and open container with care.

Protection against fire and explosion:
The product does not contribute to the spreading of flames, nor is it self combustible, not explosive.

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

Suitable materials for containers: tinned carbon steel (Tinplate)
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. Store protected against freezing.
Protect from temperatures below: 0 °C
Protect from temperatures below: 32 °F
PROTECT FROM FREEZING DURING THE COLD-SEASON (BELOW 40°F / 5°C ).

8. Exposure Controls/Personal Protection

Advice on system design:
No applicable information available.

Personal protective equipment

Respiratory protection:
Wear a NIOSH-certified (or equivalent) respirator as necessary.

Hand protection:
Wear chemical resistant protective gloves., Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:
Tightly fitting safety goggles (chemical goggles) and face shield.

Body protection:
Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:
Do not inhale gases/vapours/aerosols. Avoid contact with the skin, eyes and clothing. Handle in accordance with good building materials hygiene and safety practice. When using, do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. At the end of the shift the skin should be cleaned and skin-care agents applied. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks).

9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>liquid</td>
<td></td>
</tr>
<tr>
<td>Odour</td>
<td>ammonia-like</td>
<td></td>
</tr>
<tr>
<td>Odour threshold</td>
<td></td>
<td>No applicable information available.</td>
</tr>
<tr>
<td>Colour</td>
<td>amber</td>
<td></td>
</tr>
<tr>
<td>pH value</td>
<td>neutral to slightly alkaline</td>
<td></td>
</tr>
<tr>
<td>Melting point</td>
<td></td>
<td>No applicable information available.</td>
</tr>
<tr>
<td>Boiling point</td>
<td>&gt; 100 °C</td>
<td></td>
</tr>
<tr>
<td>Sublimation point</td>
<td></td>
<td>No applicable information available.</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 110 °C</td>
<td></td>
</tr>
<tr>
<td>Flammability</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td></td>
<td>No applicable information available.</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td></td>
<td>No applicable information available.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td></td>
<td>No applicable information available.</td>
</tr>
<tr>
<td>Density</td>
<td>0.96 g/cm³</td>
<td></td>
</tr>
<tr>
<td>Relative density</td>
<td></td>
<td>No applicable information available.</td>
</tr>
<tr>
<td>Vapour density</td>
<td></td>
<td>No applicable information available.</td>
</tr>
</tbody>
</table>
### 10. Stability and Reactivity

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

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

**Possibility of hazardous reactions**
The product is stable if stored and handled as prescribed/indicated.

**Conditions to avoid**
See MSDS section 7 - Handling and storage.

**Incompatible materials**
zinc, aluminium, oxidizing agents, strong alkalies, acids

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

Thermal decomposition:
No decomposition 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: Of low toxicity after single ingestion. The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: 3,6,9-triazaundecamethylene-1,11-diamine*
Assessment of acute toxicity: Of low toxicity after single ingestion. The European Union (EU) has classified this substance as 'harmful' after oral exposure. The inhalation of a highly enriched/saturated vapor-air-mixture represents an unlikely acute hazard. Of pronounced toxicity after short-term skin contact. The European Union (EU) has classified this substance as 'harmful' after dermal exposure.

Information on: 2,4,6-tris(dimethylaminomethyl)phenol
Assessment of acute toxicity: Of moderate toxicity after single ingestion. EU-classification

Information on: bisphenol A
Assessment of acute toxicity: Of low toxicity after single ingestion. Of low toxicity after short-term skin contact.

Oral
Type of value: ATE
Value: 2,680 mg/kg

Inhalation
Type of value: ATE
Value: > 20,0000 mg/l
Determined for vapor

Type of value: ATE
Value: > 5.0000 mg/l
Determined for mist

Dermal
Type of value: ATE
Value: 673.000000 mg/kg

Assessment other acute effects
No applicable information available.

Irritation / corrosion
Assessment of irritating effects: Corrosive! Damages skin and eyes. The product has not been tested. The statement has been derived from the properties of the individual components.

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

Information on: 3,6,9-triazaundecamethylene-1,11-diamine
Assessment of sensitization:
Caused skin sensitization in animal studies.

Chronic Toxicity/Effects

Repeated dose toxicity
Assessment of repeated dose toxicity: No reliable data was available concerning repeated dose toxicity. Based on available Data, the classification criteria are not met.

Genetic toxicity
Assessment of mutagenicity: The chemical structure does not suggest a specific alert for such an effect. Based on available Data, the classification criteria are not met.
Carcinogenicity
Assessment of carcinogenicity: The chemical structure does not suggest a specific alert for such an effect. Based on available Data, the classification criteria are not met.

Reproductive toxicity
Assessment of reproduction toxicity: The results of animal studies suggest a fertility impairing effect. The product has not been tested. The statement has been derived from the properties of the individual components.

Teratogenicity
Assessment of teratogenicity: The chemical structure does not suggest a specific alert for such an effect. Based on available Data, the classification criteria are not met.

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

Symptoms of Exposure
The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.; Further important symptoms and effects are so far not known.

12. Ecological Information

Toxicity

Aquatic toxicity
Assessment of aquatic toxicity: Acutely harmful for aquatic organisms. May cause long-term adverse effects in the aquatic environment. The product has not been tested. The statement has been derived from the properties of the individual components.

Persistence and degradability

Assessment biodegradation and elimination (H2O)
Inherently biodegradable. The insoluble fraction can be removed by mechanical means in suitable waste water treatment plants.

Bioaccumulative potential

Assessment bioaccumulation potential
Discharge into the environment must be avoided.

Mobility in soil

Assessment transport between environmental compartments
No data available.

Additional information

Other ecotoxicological advice: Do not discharge product into the environment without control. The product has not been tested. The statements on ecotoxicology have been derived from the properties of the individual components.
13. Disposal considerations

Waste disposal of substance:
Observe national and local legal requirements. Residues should be disposed of in the same manner as the substance/product.

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
Hazard class: 8
Packing group: III
ID number: UN 2320
Hazard label: 8
Proper shipping name: TETRAETHYLENEPENTAMINE MIXTURE

Sea transport
IMDG
Hazard class: 8
Packing group: III
ID number: UN 2320
Hazard label: 8
Marine pollutant: NO
Proper shipping name: TETRAETHYLENEPENTAMINE MIXTURE

Air transport
IATA/ICAO
Hazard class: 8
Packing group: III
ID number: UN 2320
Hazard label: 8
Proper shipping name: TETRAETHYLENEPENTAMINE MIXTURE

15. Regulatory Information

Federal Regulations

Registration status: Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories): Acute; Chronic

NFPA Hazard codes:
16. Other Information

SDS Prepared by:
BASF NA Product Regulations
SDS Prepared on: 2015/04/15

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