SAFETY DATA SHEET
MasterFlow 647 PART A

SECTION 1. IDENTIFICATION

Product name : MasterFlow 647 PART A
Product code : 000000000051680924 00000000051680924
Other means of identification : No data available

Manufacturer or supplier’s details
Company name of supplier : Master Builders Solutions Canada Inc.
Address : 1800 CLARK BLVD
          Brampton ON L6T 4M7
Emergency telephone : ChemTel: +1-813-248-0585; Canada: 1-800-255-3924

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 the Hazardous Products Regulations
Skin corrosion/irritation : 2
Serious eye damage/eye irritation : Category 2A
Skin sensitization : Category 1
Short-term (acute) aquatic hazard : 2
Long-term (chronic) aquatic hazard : 2

GHS label elements
Hazard pictograms :

Signal Word : Warning
Hazard Statements :
H319 Causes serious eye irritation.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H401 Toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements :
Prevention:
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P273 Avoid release to the environment.
P272 Contaminated work clothing should not be allowed out of the workplace.
P264 Wash face, hands and any exposed skin thoroughly after handling.

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.
P303 + P352 IF ON SKIN (or hair): Wash with plenty of soap and water.
P333 + P311 If skin irritation or rash occurs: Call a POISON CENTER or doctor/physician.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.
P337 + P311 If eye irritation persists: Call a POISON CENTER or doctor/physician.

Disposal:
P501 Dispose of contents/container to appropriate hazardous waste collection point.

Other hazards
No data available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : No data available.

Components

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reaction product: bisphenol-A- (epichlorhydrin)-Epoxy resin (number average molecular weight &lt;= 700)</td>
<td>25068-38-6</td>
<td>&gt;= 75 - &lt;= 100</td>
</tr>
<tr>
<td>1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane</td>
<td>17557-23-2</td>
<td>&gt;= 5 - &lt; 7</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

General advice : Remove contaminated clothing.
Move out of dangerous area.
Show this material safety data sheet to the doctor in attendance.
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 : Wash thoroughly with soap and water
If skin irritation persists, call a physician.
If on skin, rinse well with water.
If on clothes, remove clothes.

In case of eye contact:
Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.
Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
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 and effects, both acute and delayed:
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.

Notes to physician:
Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

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

Unsuitable extinguishing media:
High volume water jet

Specific hazards during fire fighting:
Do not allow run-off from fire fighting to enter drains or water courses.

Further information:
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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:
Use personal protective equipment.

Environmental precautions:
Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up:
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE
Advice on protection against fire and explosion: Product is not explosive.

Normal measures for preventive fire protection.

Advice on safe handling:
- Do not breathe vapors/dust.
- Avoid exposure - obtain special instructions before use.
- Avoid contact with skin and eyes.
- For personal protection see section 8.
- Smoking, eating and drinking should be prohibited in the application area.
- Dispose of rinse water in accordance with local and national regulations.
- Persons susceptible to skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

Conditions for safe storage:
- Keep container tightly closed in a dry and well-ventilated place.
- Containers which are opened must be carefully resealed and kept upright to prevent leakage.
- 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:
- Observe VCI storage rules.

Recommended storage temperature:
- 5 °C

Further information on storage stability:
- Minimum storage temperature:

SECTION 8. EXPOSURE CONTROLS/PERSonal PROTECTION

Ingredients with workplace control parameters:
Contains no substances with occupational exposure limit values.

Engineering measures:
- No applicable information available.

Personal protective equipment

Respiratory protection:
- When workers are facing concentrations above the occupational exposure limits they must use appropriate certified respirators.

Hand protection

Remarks:
- The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection:
- Eye wash bottle with pure water
- Tightly fitting safety goggles
- Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection:
- Impervious clothing
- Choose body protection according to the amount and con-
Protective measures:
Do not inhale gases/vapours/aerosols.
Avoid contact with the skin, eyes and clothing.
Avoid exposure - obtain special instructions before use.
Handle in accordance with good building materials hygiene and safety practice.
Wearing of closed work clothing is recommended.

Hygiene measures:
When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: liquid
Color: white
Odor: characteristic, mild
Odor Threshold: No data available
pH: not applicable
Melting point: No applicable information available.
Freezing point: No applicable information available.
Boiling point: not applicable
Flash point: 98.89 °C

Evaporation rate: No applicable information available.
Flammability (solid, gas): not determined
Upper explosion limit / Upper flammability limit: not applicable
Lower explosion limit / Lower flammability limit: not applicable
Vapor pressure: No applicable information available.
Relative vapor density: No applicable information available.
Relative density: No applicable information available.
Density: approx. 1.15 g/cm³ (20 °C)
Bulk density: not applicable
Solubility(ies):
Water solubility: insoluble
### SECTION 10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Reactivity</th>
<th>No decomposition if stored and applied as directed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical stability</td>
<td>No decomposition if stored and applied as directed.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>No decomposition if stored and applied as directed.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>See SDS section 7 - Handling and storage.</td>
</tr>
</tbody>
</table>
| 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 | ATE: > 5,000 mg/kg |
| Acute inhalation toxicity | ATE: > 20.0000 mg/l
   Remarks: Determined for vapor
   ATE: > 5.0000 mg/l
   Remarks: Determined for mist |
| Acute dermal toxicity | ATE: > 5,000 mg/kg |
Skin corrosion/irritation
Causes skin irritation.

**Product:**
Remarks : May cause skin irritation and/or dermatitis.

Serious eye damage/eye irritation
Causes serious eye irritation.

**Product:**
Remarks : May cause irreversible eye damage.

Respiratory or skin sensitization

**Skin sensitization**
May cause an allergic skin reaction.

**Respiratory sensitization**
Not classified based on available information.

**Product:**
Remarks : Causes sensitization.

Germ cell mutagenicity
Not classified based on available information.

Carcinogenicity
Not classified based on available information.

Reproductive toxicity
Not classified based on available information.

**STOT-single exposure**
Not classified based on available information.

**STOT-repeated exposure**
Not classified based on available information.

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.

Remarks : No data available
SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity
No data available

Persistence and degradability
No data available

Bioaccumulative potential

Components:

1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane:
Partition coefficient: n-octanol/water : Remarks: No data available.

Mobility in soil
No data available

Other adverse effects

Product:
Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Toxic to aquatic life.
Toxic to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues : Do not contaminate ponds, waterways or ditches with chemical or used container.
Dispose of in accordance with national, state and local regulations.
Do not discharge into drains/surface waters/groundwater.

Contaminated packaging : Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG
Not regulated as a dangerous good

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

TDG
Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

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

DSL : On the inventory, or in compliance with the inventory

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; 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; 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; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; 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; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; 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; WHMIS - Workplace Hazardous Materials Information System

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