

# SAFETY DATA SHEET

## MasterFlow 648 PART A

Version 1.0      Revision Date: 04.02.2021      SDS Number: 000000300348      Date of last issue: -  
Date of first issue: 04.02.2021

---

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : MasterFlow 648 PART A

Product code : 00000000050947457

#### Manufacturer or supplier's details

Company : Master Builders Solutions Malaysia  
Sdn. Bhd

Address : No 8, Jalan Keluli 2, Kawasan Perindustrian Bukit Raja  
41050, Klang, Selangor, Malaysia

Telephone : +60330821000

Emergency telephone : +1-813-248-0585

Telefax : +60333445330

#### Recommended use of the chemical and restrictions on use

Recommended use : Product for construction chemicals

Restrictions on use : Industrial use  
Professional use

---

### 2. HAZARDS IDENTIFICATION

#### GHS Classification

Acute toxicity (Oral) : Category 4

Acute toxicity (Dermal) : Category 5

Skin corrosion/irritation : Category 2

Serious eye damage/eye irritation : Category 2A

Skin sensitization : Category 1

Carcinogenicity : Category 2

Specific target organ toxicity - repeated exposure : Category 2

Hazardous to the aquatic environment - acute hazard : Category 2

Hazardous to the aquatic environment - chronic hazard : Category 2

#### GHS label elements

# SAFETY DATA SHEET

## MasterFlow 648 PART A

Version 1.0      Revision Date: 04.02.2021      SDS Number: 000000300348      Date of last issue: -  
Date of first issue: 04.02.2021

---

Hazard pictograms



Signal Word

: Warning

Hazard Statements

: H319 Causes serious eye irritation.  
H315 Causes skin irritation.  
H312 Harmful in contact with skin.  
H302 Harmful if swallowed.  
H317 May cause an allergic skin reaction.  
H401 Toxic to aquatic life.  
H411 Toxic to aquatic life with long lasting effects.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H351 Suspected of causing cancer.

Precautionary Statements

: **Prevention:**

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P271 Use only outdoors or in a well-ventilated area.  
P273 Avoid release to the environment.  
P260 Do not breathe dust or mist.  
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.  
P270 Do not eat, drink or smoke when using this product.  
P264 Wash face, hands and any exposed skin thoroughly after handling.

**Response:**

P311 Call a POISON CENTER/ doctor/ .?  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P302 + P352 IF ON SKIN: Wash with plenty of water.  
P361 Take off immediately all contaminated clothing.  
P301 + P330 IF SWALLOWED: rinse mouth.  
P332 + P313 If skin irritation occurs: Get medical advice/ attention.  
P362 + P364 Take off contaminated clothing and wash it before reuse.  
P391 Collect spillage.

**Storage:**

P405 Store locked up.

**Disposal:**

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

**Other hazards which do not result in classification**

Possible risk by inhalation of aerosols.

# SAFETY DATA SHEET

## MasterFlow 648 PART A

Version 1.0      Revision Date: 04.02.2021      SDS Number: 000000300348      Date of last issue: -  
Date of first issue: 04.02.2021

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : epoxy resin  
modified

#### Components

| Chemical name   | CAS-No.    | Concentration (% w/w) |
|---|------------|-----------------------|
| Reaction product: bisphenol-A-(epichlorhydrin)-Epoxy resin (number average molecular weight <= 700) | 25068-38-6 | >= 75 - <= 100        |
| 1,4-bis(2,3-epoxypropoxy)butane   | 2425-79-8  | >= 15 - < 20          |
| furfuryl alcohol  | 98-00-0    | >= 1 - <= 10          |

### 4. FIRST AID MEASURES

General advice : Move out of dangerous area.  
Show this material safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.

If inhaled : Consult a physician after significant exposure.  
If unconscious, place in recovery position and seek medical advice.

In case of skin contact : Take victim immediately to hospital.  
If on skin, rinse well with water.  
If on clothes, remove clothes.

In case of eye contact : 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 : Clean mouth with water and drink afterwards plenty of water.  
Induce vomiting immediately and call a physician.  
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.  
Take victim immediately to hospital.

Most important symptoms and effects, both acute and delayed : Harmful if swallowed, in contact with skin or if inhaled.  
Causes skin irritation.  
May cause an allergic skin reaction.  
Causes serious eye irritation.  
Suspected of causing cancer.  
May cause damage to organs through prolonged or repeated exposure.

Notes to physician : Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

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.

# SAFETY DATA SHEET

## MasterFlow 648 PART A

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: -           |
| 1.0     | 04.02.2021     | 000000300348 | Date of first issue: 04.02.2021 |

---

- Specific extinguishing methods : 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.
- 

### 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment. Ensure adequate ventilation.
- 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 : Neutralize with acid. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.
- 

### 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 : Avoid formation of aerosol. 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. Provide sufficient air exchange and/or exhaust in work rooms. 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. Observe label precautions. 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.
-

# SAFETY DATA SHEET

## MasterFlow 648 PART A

Version 1.0      Revision Date: 04.02.2021      SDS Number: 000000300348      Date of last issue: -  
Date of first issue: 04.02.2021

---

Materials to avoid : Observe TRGS 509/510 storage rules.

Further information on storage stability : No decomposition if stored and applied as directed.

---

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

#### Personal protective equipment

Respiratory protection : Wear respiratory protection if ventilation is inadequate.  
Combination filter for gases/vapours of organic, inorganic, acid inorganic and alkaline compounds (e.g. EN 14387 Type ABEK).

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 concentration of the dangerous substance at the work place.

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.

---

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Color : cloudy

Odor : characteristic

pH : approx. 11

Melting temperature : Not applicable

Boiling point : > 171 °C

Flash point : 201,6 °C

Evaporation rate : not determined

---

# SAFETY DATA SHEET

## MasterFlow 648 PART A

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: -           |
| 1.0     | 04.02.2021     | 000000300348 | Date of first issue: 04.02.2021 |

---

Flammability (solid, gas) : not highly flammable

Upper explosion limit / Upper flammability limit : As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.

Lower explosion limit / Lower flammability limit : As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.

Vapor pressure : approx. 6 hPa

Relative vapor density : not determined

Density : approx. 1,125 - 1,185 g/cm<sup>3</sup> (20 °C)

Solubility(ies)  
Water solubility : soluble

Autoignition temperature : No data available

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

Viscosity  
Viscosity, dynamic : approx. 300 - 500 cps (approx. 23 °C)

Explosive properties : Not explosive  
Not explosive

Oxidizing properties : not fire-propagating

Metal corrosion rate : No corrosive effect on metal.

---

### 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 : No decomposition if stored and applied as directed.

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.

**MasterFlow 648 PART A**

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: -           |
| 1.0     | 04.02.2021     | 000000300348 | Date of first issue: 04.02.2021 |

---

**11. TOXICOLOGICAL INFORMATION****Acute toxicity**

Harmful if swallowed or in contact with skin.

**Skin corrosion/irritation**

Causes skin irritation.

**Serious eye damage/eye irritation**

Causes serious eye irritation.

**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**

Suspected of causing cancer.

**Reproductive toxicity**

Not classified based on available information.

**STOT-single exposure**

Not classified based on available information.

**STOT-repeated exposure**

May cause damage to organs through prolonged or repeated exposure.

**Aspiration toxicity**

Not classified based on available information.

**Product:**

No aspiration hazard expected.

**Further information****Product:**

Remarks : No data available

**Components:**

**Reaction product: bisphenol-A-(epichlorhydrin)-Epoxy resin (number average molecular weight <= 700):**

Remarks : Health injuries are not known or expected under normal use. The product has not been tested. The statements on toxicology have been derived from the properties of the individual

## MasterFlow 648 PART A

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: -           |
| 1.0     | 04.02.2021     | 000000300348 | Date of first issue: 04.02.2021 |

components.

---

**12. ECOLOGICAL INFORMATION**
**Ecotoxicity****Product:****Ecotoxicology Assessment**

Acute aquatic toxicity : Toxic to aquatic life.

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

**Persistence and degradability****Product:**

Biodegradability : Remarks: Taking into consideration the properties of several ingredients, the product is estimated not to be readily biodegradable according to OECD classification.

Stability in water : Remarks: The product is slightly soluble in water. It can be eliminated from water by abiotic processes.

**Bioaccumulative potential****Product:**

Bioaccumulation : Remarks: Because of the product's consistency and low water solubility, bioavailability is improbable.

**Components:****Reaction product: bisphenol-A-(epichlorhydrin)-Epoxy resin (number average molecular weight <= 700):**

Bioaccumulation : Remarks: Because of the product's consistency and low water solubility, bioavailability is improbable.

**Mobility in soil****Product:**

Distribution among environmental compartments : Remarks: The substance will not evaporate into the atmosphere from the water surface. Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

**Other adverse effects****Product:**

Ozone-Depletion Potential : Remarks: The product does not contain substances that are listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.



# SAFETY DATA SHEET

## MasterFlow 648 PART A

Version 1.0      Revision Date: 04.02.2021      SDS Number: 000000300348      Date of last issue: -  
Date of first issue: 04.02.2021

---

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.

### Components:

**Reaction product: bisphenol-A-(epichlorhydrin)-Epoxy resin (number average molecular weight <= 700):**

Additional ecological information : Acutely toxic for aquatic organisms.  
Do not discharge product into the environment without control.

---

## 13. DISPOSAL CONSIDERATIONS

### **Disposal methods**

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Do not re-use empty containers.

---

## 14. TRANSPORT INFORMATION

### **International Regulations**

#### **UNRTDG**

UN number : UN 3082  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(BISPHENOL-A-EPICHLORHYDRIN RESINS M <=700)  
Class : 9  
Subsidiary risk : EHSM  
Packing group : III  
Labels : 9 (EHSM)

#### **IATA-DGR**

UN/ID No. : UN 3082  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(BISPHENOL-A-EPICHLORHYDRIN RESINS M <=700)  
Class : 9  
Subsidiary risk : EHSM  
Packing group : III  
Labels : Miscellaneous, Environmentally hazardous  
Packing instruction (cargo aircraft) : 964  
Packing instruction (passenger aircraft) : 964

#### **IMDG-Code**

# SAFETY DATA SHEET

## MasterFlow 648 PART A

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: -           |
| 1.0     | 04.02.2021     | 000000300348 | Date of first issue: 04.02.2021 |

---

UN number : UN 3082  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BISPHENOL-A-EPICHLORHYDRIN RESINS M <=700)  
Class : 9  
Subsidiary risk : EHSM  
Packing group : III  
Labels : 9 (EHSM)  
EmS Code : F-A, S-F  
Marine pollutant : yes

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

### Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

---

## 15. REGULATORY INFORMATION

### Safety, health and environmental regulations/legislation specific for the substance or mixture

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

---

## 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

# SAFETY DATA SHEET

## MasterFlow 648 PART A

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: -           |
| 1.0     | 04.02.2021     | 000000300348 | Date of first issue: 04.02.2021 |

---

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

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

UN / EN