SAFETY DATA SHEET

MasterFlow 648 Low Dust Part A

SECTION 1. IDENTIFICATION

Product name : MasterFlow 648 Low Dust Part A
Product code : 000000000050490208 000000000050490208

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
Skin corrosion/irritation : Category 2
Serious eye damage/eye irritation : Category 2A
Skin sensitization : Category 1
Short-term (acute) aquatic hazard : Category 2
Long-term (chronic) aquatic hazard : Category 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.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
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 + P313 If eye irritation persists: Get medical advice/attention.

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

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : No applicable information 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;= 50 - &lt; 75</td>
</tr>
<tr>
<td>1,4-bis(2,3-epoxypropoxy)butane</td>
<td>2425-79-8</td>
<td>&gt;= 10 - &lt; 15</td>
</tr>
</tbody>
</table>

SECTION 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 : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact : If skin irritation persists, call a physician.
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:
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:
Foam
Water spray
Dry powder
Carbon dioxide (CO2)

Unsuitable extinguishing media:
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.
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
Wear appropriate certified respirator when exposure limits may be exceeded.

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.

Section 9. Physical and Chemical Properties
Appearance : liquid
Color : light amber
Odor : mild
pH : No data available
Melting point : No applicable information available.
Freezing point : No applicable information available.
Boiling point : approx. 410.00 °F / 210.00 °C
Flash point : approx. 419.00 °F / 215.00 °C
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.
Density : 9.79 lb/USg (68.00 °F / 20.00 °C)
Solubility(ies) : No data available
Water solubility : No data available
Solubility in other solvents : No applicable information available.
Partition coefficient: n-octanol/water : No applicable information available.
Autoignition temperature : not determined
Decomposition temperature : No decomposition if stored and handled as prescribed/indicated.
Viscosity : 1,820,000 mPa.s (73.40 °F / 23.00 °C)
Method: N-114; Brookfield Viscosity
Viscosity, kinematic : No applicable information available.
Explosive properties : Not explosive
Oxidizing properties : Not an oxidizer.
Sublimation point : No applicable information available.
Molecular weight : No data 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 : 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.

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
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
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.

Further information

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

SECTION 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
No data available

Bioaccumulative potential

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

Mobility in soil
No data available

Other adverse effects

Product: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Additional ecological information: Toxic to aquatic life. Toxic to aquatic life with long lasting effects. The product has not been tested. The statements on ecotoxi-
SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
- Waste from residues: Dispose of in accordance with national, state and local regulations. Do not contaminate ponds, waterways or ditches with chemical or used container. 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
- 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

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
NFPA 704:

Flammability

Health

0

Instability

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

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 Obervable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPPTS - 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; SADT - 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
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