SAFETY DATA SHEET

MasterFlow 648 PART B

SECTION 1. IDENTIFICATION

Product name : MasterFlow 648 PART B
Product code : 000000000055361032 00000000055361032

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
Acute toxicity (Oral) : Category 4
Acute toxicity (Dermal) : Category 4
Skin corrosion/irritation : Category 1B
Serious eye damage/eye irritation : Category 1
Respiratory sensitization : Category 1B
Skin sensitization : Category 1B
Short-term (acute) aquatic hazard : Category 3
Long-term (chronic) aquatic hazard : Category 3

GHS label elements
Hazard pictograms : 
Signal Word : Danger

Hazard Statements : H312 Harmful in contact with skin.
H302 Harmful if swallowed.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H314 Causes severe skin burns and eye damage.
Precautionary Statements:

**Prevention:**
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P260 Do not breathe dust or mist.
- P273 Avoid release to the environment.
- P284 In case of inadequate ventilation wear respiratory protection.
- 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:**
- P310 Immediately 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.
- P304 + P341 + P311 IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. 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.
- P362 + P364 Take off contaminated clothing and wash it before reuse.

**Storage:**
- P405 Store locked up.

**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>triethylenetetramine</td>
<td>112-24-3</td>
<td>&gt;= 15 - &lt; 20</td>
</tr>
<tr>
<td>3,6,9-triazaundecamethylene-1,11-diamine</td>
<td>112-57-2</td>
<td>&gt;= 5 - &lt; 15</td>
</tr>
<tr>
<td>2,4,6-</td>
<td>90-72-2</td>
<td>&gt;= 5 - &lt; 7</td>
</tr>
</tbody>
</table>
SECTION 4. FIRST AID MEASURES

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

If inhaled:
- Call a physician or poison control center immediately.
- If unconscious, place in recovery position and seek medical advice.

In case of skin contact:
- Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
- Take victim immediately to hospital.
- If on skin, rinse well with water.
- If on clothes, remove clothes.

In case of eye contact:
- Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
- In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- Continue rinsing eyes during transport to hospital.
- 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 induce vomiting.
- 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 or in contact with skin.
- May cause an allergic skin reaction.
- Causes serious eye damage.
- May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Causes severe burns.

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: In the event of fire, wear self-contained breathing apparatus.

SECTION 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: 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: 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. To avoid spills during handling keep bottle on a metal tray. 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, well-ventilated place. Protect from direct sunlight. Store protected against freezing.
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 a NIOSH-certified (or equivalent) respirator as necessary.

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 workplace.

Protective measures
: Avoid contact with the skin, eyes and clothing.
: In order to prevent contamination while handling, closed working clothes and working gloves should be used.
: Handle in accordance with good building materials hygiene and safety practice.

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
: paste

Color
: amber

Odor
: ammonia-like

Odor Threshold
: No data available

pH
: alkaline

Melting point
: No applicable information available.

Boiling point
: No applicable information available.

Flash point
: approx. 300.00 °F / 148.89 °C
Method: Standard Method of Test for Flash Point by Setaflash Closed Tester

Evaporation rate: No applicable information available.

Flammability (solid, gas): not highly flammable

Vapor pressure: < 1 hPa (68 °F / 20 °C)

Relative density: No applicable information available.

Density: approx. 0.96 g/cm³ (approx. 68 °F / 20 °C)

Solubility(ies)
  Water solubility: insoluble (68 °F / 20 °C)

Solubility in other solvents: No applicable information available.

Partition coefficient: n-octanol/water: No applicable information available.

Autoignition temperature: approx. 561 °F / 294 °C

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

Viscosity
  Viscosity, dynamic: No applicable information available.
  Viscosity, kinematic: No applicable information available.

Explosive properties: Not explosive
  Not explosive

Oxidizing properties: Based on its structural properties the product is not classified as oxidizing.

Sublimation point: No applicable information available.

Molecular weight: No data available

Metal corrosion rate: Corrosive effects to metal are not anticipated.

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

Hazardous decomposition: No hazardous decomposition products if stored and handled.
SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity
Harmful if swallowed or in contact with skin.

Product:
Acute oral toxicity : ATE: 2,030 mg/kg
Acute inhalation toxicity : Remarks: No applicable information available.
Acute dermal toxicity : ATE: 844 mg/kg

Skin corrosion/irritation
Causes severe burns.

Product:
Remarks : Extremely corrosive and destructive to tissue.

Serious eye damage/eye irritation
Causes serious eye damage.

Product:
Remarks : May cause irreversible eye damage.

Respiratory or skin sensitization

Skin sensitization
May cause an allergic skin reaction.

Respiratory sensitization
May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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.
Components:

3,6,9-triazaundecamethylene-1,11-diamine:
Not applicable

Bis[(dimethylamino)methyl]phenol:
Not applicable

Further information

Product:
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 components.

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity
No data available

Persistence and degradability
No data available

Bioaccumulative potential

Components:

triethylenetetramine:
Partition coefficient: n-octanol/water: log Pow: -2.65 (77 °F / 25 °C)
Method: other (calculated)
GLP: no
Remarks: The data refers to the undissociated form of the substance.

3,6,9-triazaundecamethylene-1,11-diamine:
Partition coefficient: n-octanol/water: log Pow: -3.16

Bis[(dimethylamino)methyl]phenol:
Partition coefficient: n-octanol/water: log Pow: 1.02 (77 °F / 25 °C)
Method: other (calculated)

Mobility in soil
No data available

Other adverse effects

Product:
Additional ecological information: An environmental hazard cannot be excluded in the event of
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

UN/RTDG
UN number: UN 3267
Proper shipping name: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.
(TRIETHYLENETETRAMINE,
BIS[(DIMETHYLAMINO)METHYL]PHENOL, TALLOIL FATTY ACIDS, REACTION PRODUCTS WITH TETRAETHYLENEPENTAMINE)
Class: 8
Packing group: II
Labels: 8

IATA-DGR
UN/ID No.: UN 3267
Proper shipping name: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.
(TRIETHYLENETETRAMINE,
BIS[(DIMETHYLAMINO)METHYL]PHENOL, TALLOIL FATTY ACIDS, REACTION PRODUCTS WITH TETRAETHYLENEPENTAMINE)
Class: 8
Packing group: II
Labels: Corrosive
Packing instruction (cargo aircraft): 855
Packing instruction (passenger aircraft): 851

IMDG-Code
UN number: UN 3267
Proper shipping name: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.
(TRIETHYLENETETRAMINE,
BIS[(DIMETHYLAMINO)METHYL]PHENOL, TALLOIL FATTY ACIDS, REACTION PRODUCTS WITH TETRAETHYLENEPENTAMINE)
Class: 8
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
UN/ID/NA number : UN 3267
Proper shipping name : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.
(TRIETHYLENETETRAMINE, BIS[(DIMETHYLAMINO)METHYL]PHENOL, TALLOIL FATTY ACIDS, REACTION PRODUCTS WITH TETRAETHYLENEPENTAMINE)

Class : 8
Packing group : II
Labels : CORROSIVE
ERG Code : 153
Marine pollutant : no

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.

SECTION 15. REGULATORY INFORMATION

US State Regulations

Pennsylvania Right To Know
triethylenetetramine
3,6,9-triazaundecamethylene-1,11-diamine listed
112-24-3
112-57-2

New Jersey Right To Know
triethylenetetramine
3,6,9-triazaundecamethylene-1,11-diamine
Special Hazard listed
112-24-3
112-57-2

The ingredients of this product are reported in the following inventories:
TSCA : On the inventory, or in compliance with the inventory

SECTION 16. OTHER INFORMATION

Further information
NFPA 704:  

Health: 1  
Flammability: 3  
Instability: 0  
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; IECSG - 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 Obeserved Effect Loading Rate; 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; 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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