MasterFlow 648 PART B

Version	Revision Date:	SDS Number:	Date of last issue: 11/16/2020
2.0	10/05/2022	000000259967	Date of first issue: 11/16/2020

SECTION 1. IDENTIFICATION

Product name : MasterFlow 648 PART B

Product code : 000000000055361032 000000000055361032

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

National Emergency Telephone Number : USA: +1-800-255-3924 ChemTel contract no. MIS9240420

Recommended use of the chemical and restrictions on use

Recommended use : Injection or grouting applications

Restrictions on use : Reserved for industrial and professional use.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity (Oral) : Category 4

Skin corrosion : Category 1B

Serious eye damage : Category 1

Skin sensitization : Category 1

Specific target organ toxicity - single exposure : Category 3 (Respiratory system)

Short-term (acute) aquatic hazard : Category 3

Long-term (chronic) aquatic hazard : Category 2

GHS label elements

Hazard pictograms :

Signal Word : Danger

Hazard Statements :

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
H402 Harmful to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements :

Prevention:

P261 Avoid breathing mist or vapors.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing must not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P363 Wash contaminated clothing before reuse.
P391 Collect spillage.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

Use of part A and part B without Part C in this three part product system is not recommended especially when applied to small spaces. The mixing of part A and part B generates heat, which may cause the mixture of A and B without part C to spurt violently from voids, thereby creating the potential for unexpected contact with product on exposed skin or in eyes.
Avoid contact with water, alcohols, acidic, basic, or oxidizing materials.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Amines
fatty acids

Components

Chemical name	CAS-No.	Concentration (% w/w)
Fatty acids, tall-oil, reaction products with tetraethylenepentamine	68953-36-6	>= 50 - < 70
triethylenetetramine	112-24-3	>= 10 - < 20
2,4,6-tris(dimethylaminomethyl)phenol	90-72-2	>= 5 - < 10
3,6,9-triazaundecamethylene-1,11-diamine	112-57-2	>= 5 - < 10
Bis[(dimethylamino)methyl]phenol	71074-89-0	>= 1 - < 5
Fatty acids, C18-unsatd., trimers, compds. with oleylamine	147900-93-4	>= 0.1 - < 1

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice : First aid personnel should pay attention to their own safety.
Immediately remove contaminated clothing.

If inhaled : If difficulties occur after vapour/aerosol has been inhaled, remove to fresh air and seek medical attention.

In case of skin contact : After contact with skin, wash immediately with plenty of water and soap.
Under no circumstances should organic solvent be used.
If irritation develops, seek medical attention.

In case of eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
Remove contact lenses.
Keep eye wide open while rinsing.
Seek medical advice.
If eye irritation persists, consult a specialist.

If swallowed : Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.
Do not induce vomiting unless told to by a poison control center or doctor.

Most important symptoms and effects, both acute and : Harmful if swallowed.
Causes severe skin burns and eye damage.

delayed		May cause an allergic skin reaction. May cause respiratory 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
Hazardous combustion products	:	nitrogen oxides fumes/smoke carbon black corrosive gases/vapours
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.
Special protective equipment for fire-fighters	:	Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

SECTION 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 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	:	Wear personal protective equipment. Avoid contact with the skin, eyes and clothing. Avoid inhalation of mists/vapours. Ensure adequate ventilation.
Conditions for safe storage	:	Keep container tightly closed in a dry and well-ventilated

place.
Protect from direct sunlight.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage temperature : > 32 °F / > 0 °C

Further information on storage stability : PROTECT FROM FREEZING.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
triethylenetetramine	112-24-3	TWA	1 ppm	US WEEL
3,6,9-triazaundecamethylene-1,11-diamine	112-57-2	TWA	5 mg/m3	US WEEL

Engineering measures : Ensure adequate ventilation.

Personal protective equipment

Respiratory protection : Wear appropriate certified respirator when exposure limits may be exceeded.
Use NIOSH approved respiratory protection.

Hand protection

Remarks : Wear chemical resistant protective gloves. Manufacturer's directions for use should be observed because of great diversity of types.

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

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

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, 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 skincare agents applied.
Gloves must be inspected regularly and prior to each use.

Replace if necessary (e.g. pinhole leaks).

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	paste
Color	:	amber
Odor	:	ammonia-like
Odor Threshold	:	No data available
pH	:	alkaline
Melting point	:	No data available
Boiling point	:	No data available
Flash point	:	approx. 300 °F / 149 °C Method: Standard Method of Test for Flash Point by Setaflash Closed Tester
Evaporation rate	:	No data available
Flammability (solid, gas)	:	not highly flammable
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	< 1 hPa (68 °F / 20 °C)
Relative density	:	No data 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 data available
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	approx. 561 °F / 294 °C
Decomposition temperature	:	No decomposition if stored and handled as pre-

scribed/indicated.

Viscosity

Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Explosive properties	:	Not explosive
Oxidizing properties	:	Based on its structural properties the product is not classified as oxidizing.
Sublimation point	:	No data available
Molecular weight	:	Not applicable
Metal corrosion rate	:	Corrosive effects to metal are not anticipated.

SECTION 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 SDS section 7 - Handling and storage.
Incompatible materials	:	Strong acids Strong bases Strong oxidizing agents
Hazardous decomposition products	:	No hazardous decomposition products if stored and handled as prescribed/indicated.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Harmful if swallowed.

Product:

Acute oral toxicity	:	Acute toxicity estimate: 1,614 mg/kg Method: Calculation method

Skin corrosion/irritation

Causes severe burns.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitization

Skin sensitization

May cause an allergic skin reaction.

Respiratory sensitization

Not classified based on available information.

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

May cause respiratory irritation.

STOT-repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

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.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Ecotoxicology Assessment

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

Components:

Fatty acids, tall-oil, reaction products with tetraethylenepentamine:

M-Factor (Acute aquatic toxicity)	:	10
M-Factor (Chronic aquatic toxicity)	:	1

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

Product:

Additional ecological information	:	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.

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	:	Dispose of container and any rinsate in an environmentally safe manner. Uncleaned empties should be disposed of in the same manner as the contents.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number	:	UN 2735
Proper shipping name	:	AMINES, LIQUID, CORROSIVE, N.O.S. (TRIETHYLENETETRAMINE, 3,6,9-TRIAZAUNDECAMETHYLENEDIAMINE, TALLOIL FATTY ACIDS, REACTION PRODUCTS WITH TETRAETHYLENEPENTAMINE)
Class	:	8
Packing group	:	II
Labels	:	8

IATA-DGR

UN/ID No.	:	UN 2735
Proper shipping name	:	Amines, liquid, corrosive, n.o.s. (TRIETHYLENETETRAMINE, 3,6,9-TRIAZAUNDECAMETHYLENEDIAMINE, 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 2735
Proper shipping name	:	AMINES, LIQUID, CORROSIVE, N.O.S. (TRIETHYLENETETRAMINE, 3,6,9-TRIAZAUNDECAMETHYLENEDIAMINE, TALLOIL FATTY ACIDS, REACTION PRODUCTS WITH TETRAETHYLENEPENTAMINE)
Class	:	8
Packing group	:	II
Labels	:	8
EmS Code	:	F-A, S-B
Marine pollutant	:	yes

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 2735
Proper shipping name	:	Amines, liquid, corrosive, n.o.s. (TRIETHYLENETETRAMINE, 3,6,9-TRIAZAUNDECAMETHYLENEDIAMINE, TALLOIL FATTY ACIDS, REACTION PRODUCTS WITH TETRAETHYLENEPENTAMINE)
Class	:	8
Packing group	:	II
Labels	:	CORROSIVE
ERG Code	:	153
Marine pollutant	:	yes

SECTION 15. REGULATORY INFORMATION

US State Regulations

Pennsylvania Right To Know

triethylenetetramine	112-24-3
3,6,9-triazaundecamethylene-1,11-diamine	112-57-2

New Jersey Right To Know

triethylenetetramine	112-24-3
3,6,9-triazaundecamethylene-1,11-diamine	112-57-2

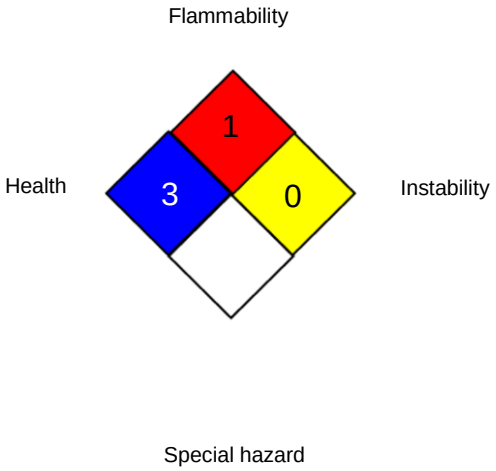
The ingredients of this product are reported in the following inventories:

TSCA	:	All substances listed as active on the TSCA inventory
DSL	:	All components of this product are on the Canadian DSL

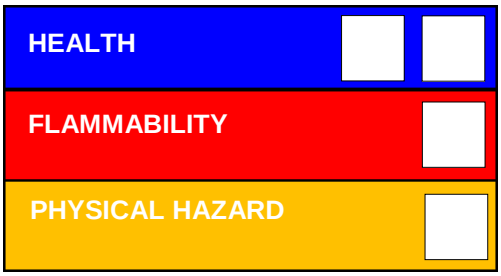
SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:



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

US WEEL	:	USA. Workplace Environmental Exposure Levels (WEEL)
US WEEL / TWA	:	8-hr TWA

AIIC - Australian Inventory of Industrial Chemicals; 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 Observable 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 Substanc-

es; (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; TECI - Thailand Existing Chemicals 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

Revision Date : 10/05/2022

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.

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