

PRODUCT DATA

3 03 63 00 **Epoxy Grouting****MASTERFLOW® 648 CP**

High-strength foundation grout

Description

Masterflow® 648 CP is a high-performance epoxy grouting material for support of heavy equipment. It ensures the proper transmission of static and dynamic loads to the equipment foundation.

Yield

One 230 lb unit of Masterflow® CP will yield approximately 1.73 ft³ (0.049 m³) of mixed material at the 6.75 fill ratio.

Packaging

Masterflow® 648 CP grout is packaged in complete units.

230 LB FULL UNITS

Resin:

One 22 lb, 5 oz pail (10.1 kg)

Hardener:

One 7 lb, 9 oz bottle (3.4 kg)

Aggregate:

Four 50 lb bags (22.7 kg each)

Color

Dark gray

Shelf Life

2 years (for both resin and hardener) when properly stored

Storage

Store in unopened containers at 60 to 80° F (16 to 27° C) in clean, dry conditions.

Features

- High early and 7 day strengths with low creep
- Superior physical properties at high temperatures
- High flowability
- Variable fill ratio
- Resists acids, caustics, solvents, and other chemicals

Benefits

- Rapid turnaround
- Unaffected by temperature extremes
- Excellent bearing area for even distribution of loads
- Optimum flowability, bearing area, and economics
- Ideal for heavy industrial environments

Where to Use

- Where fast turnaround and high early and 7 day compressive strengths are needed.
- Heavy equipment grouting
- Precision alignment of machinery, compressors, and prime movers
- Foundations under crusher ball mills, slab tables, and other equipment
- Mining, steel, gas, and power industries
- Pulp and paper mills
- Chemical processing facilities

LOCATION

- Interior or exterior

How to Apply

Refer to Appendix MB-11: Guide to Epoxy Grouting for additional information.

Surface Preparation**FOUNDATION PREPARATION**

1. Cure the foundation until design strength of the concrete is achieved and foundation is dry. Use the recommended procedure according to ACI Standard 318: "Concrete shall be maintained above 50° F (10° C) and in a moist condition for at least the first 7 days." Minimum concrete compressive strength of 3,000 psi (21 MPa) should be specified; higher strength concrete is recommended for optimum performance.

2. Chip the concrete surface so aggregate is exposed to ensure all laitance and weak float are removed. Chamfer the edge of the concrete 45 degrees to about a 2" (51 mm) width. (See Figure 1 on page 5.)
3. For freshly placed concrete, consider using Liquid Surface Etchant (see Form No. 1020198).
4. The concrete base must be clean, dry, and free of oil, wax, and other contaminants.
5. If an anchor bolt sleeve is to be filled, be sure all water is removed. Use a siphon, vacuum pump, or rubber hose and bulb. Remove the residual moisture by either forced air or evaporation.
6. Seal the anchor bolt hole with felt, foam rubber, or other means.
7. Cover all shims and leveling screws with putty or clay to keep the grout from adhering. Use model clay, glazing putty, or anything with a putty consistency that will stick but not harden. Shims or jack pockets may be formed with wood, and forms filled with damp sand.
8. Remove shims or jack screws after the grout reaches its design strength.
9. SHADE THE FOUNDATION FROM DIRECT SUNLIGHT FOR AT LEAST 24 HOURS BEFORE AND 48 HOURS AFTER GROUTING.

Technical Data

Composition

Masterflow® 648 CP is a three-component epoxy grouting material consisting of resin, hardener, and aggregate.

Test Data

PROPERTY	RESULTS	TEST METHODS	
Tensile strength , psi (MPa), filled 6.25 : 1	2,300 (16)	ASTM C 307	
Modulus of elasticity , psi (GPa)		ASTM C 580	
Test Temp	Fill Ratios		
° F (° C)	5.75	6.25	
76 (24)	2.5 x 10 ⁶ (18)	2.5 x 10 ⁶ (18)	
110 (43)	2.1 x 10 ⁶ (15)	2.3 x 10 ⁶ (16)	
125 (52)	2.0 x 10 ⁶ (14)	2.1 x 10 ⁶ (15)	
140 (60)	1.6 x 10 ⁶ (11)	1.7 x 10 ⁶ (12)	
155 (68)	0.7 x 10 ⁶ (5)	0.9 x 10 ⁶ (6)	
Flexural strength , psi (MPa), filled 6.25 : 1, cured 7 days at 73° F (23° C)		ASTM C 580	
° F (° C)			
76 (24)	4,600 (32)		
140 (60)	4,200 (29)		
170 (77)	2,100 (15)		
Creep , in/in		Test Method STS 22.2	
Over 24 hours	2.8 x 10 ⁻³		
Over 1 year	3.7 x 10 ⁻³		
Over 10 years	4.0 x 10 ⁻³		
Cure rate , filled 6.25 : 1		ASTM C 579 modified, 2 by 2" cubes	
Compressive strength , psi(MPa), when cured at:			
Hours	55° F (13° C)	73° F (23° C)	90° F (32° C)
8	—	700 (5)	9,400 (65)
16	—	7,000 (48)	13,700 (96)
24	1,300 (9)	11,500 (81)	16,000 (112)
48	9,400 (65)	16,400 (115)	18,500 (130)
72	13,900 (96)	17,100 (118)	19,000 (134)
96	16,700 (115)	18,000 (124)	20,000 (141)
Shrinkage, unrestrained linear , in/in, filled 6.25:1	0.00065		ASTM C 531
Coefficient of thermal expansion , in/in/° F (cm/cm/° C), filled 6.25 : 1			ASTM C 531
31 – 74° F (0 – 23° C)	11.8 x 10 ⁻⁶ (21.2 x 10 ⁻⁶)		
74 – 110° F (23 – 43° C)	13.0 x 10 ⁻⁶ (23.4 x 10 ⁻⁶)		
74 – 210° F (23 – 99° C)	21.8 x 10 ⁻⁶ (39.2 x 10 ⁻⁶)		
Water absorption , %, filled 6.25 : 1	0.076		ASTM C 413
Bond strength to steel , tension, psi (MPa)			Michigan DOT
73° F (23° C)	3,100 (21)		
140° F (60° C)	2,000 (14)		
Bond strength to steel , shear, psi (MPa)			Michigan DOT
73° F (23° C)	5,000 (35)		
140° F (60° C)	2,000 (14)		
Density , lb/ft ³ (kg/m ³)			ASTM C 905
Filled 5.75 :1	129 (2,064)		
Filled 6.25 :1	131 (2,096)		
Filled 6.75 :1	133 (2,128)		
Volume per unit , filled 6.75 : 1	1.73 ft ³ (0.049 m ³)		
Impact strength	Better than concrete		
Abrasion resistance	Better than concrete		

Test results are averages obtained under laboratory conditions. Expect reasonable variations.

MATERIALS REMOVED OR ADDED

TEMPERATURE ° F (° C)	THIN POURS OR LONG FLOW DISTANCES UNDER EQUIPMENT	STANDARD POURS	THICK POURS, OPEN AREAS, OR SHORT FLOW DISTANCES
Above 90 (32)	—	—	1/2 – 1 bag (Add 3.8 L)
70 – 90 (21 – 32)	Up to 1/2 bag	—	1/2 bag
50 – 70 (10 – 21)	1/2 to 1 bag	1/2 bag	1/2 bag

EQUIPMENT PREPARATION

1. Sandblast to near-white metal the bonding surfaces of the base to be grouted; it must be free of coatings, wax, grease, or scale. Other mechanical methods, such as grinding or sanding, will suffice, but do not produce as high a bond strength as sandblasting.
2. Primer should be used ONLY when a long delay between cleaning and grouting could allow excessive rusting or contamination. If the base must be primed, use Concreative® 1090. If the primer has been on the surface for more than 1 month, abrade and solvent wipe it so that no residue is left. Priming, if required, must be performed when the relative humidity is less than 80% and the temperature of the surface is at least 5° F (3° C) higher than the dew point.
3. The grout should come up at least 3/4" (19 mm) onto the equipment. Mask the area above it with masking tape.
4. To facilitate cleanup, wax or cover all surfaces where the grout may splash or spill.

Forming

1. Protect the foundation and equipment from rain or moisture. Water will tend to prevent grout bond and inhibit cure.
2. Seal off areas that will not be grouted.
3. Place forms no greater than 6" (152 mm) away from the edge of the individual base rail or soleplate on the sides where the grout is not being poured. Excessive edges create thermal stress and result in excessive cracking. On the pouring side forms are typically 2 – 6" (51 – 152 mm) from the edge of the supporting area. However, this may vary depending on the application. Moderate to large-size equipment and difficult or narrow placement applications should utilize an extended head form to create additional head pressure and to enhance placement. Consult your BASF representative for specific recommendations.
4. Forms must be liquid tight. They may be sealed with putty, foam, or caulk. Seal wood forms to vertical concrete surface by applying putty or caulk below top of concrete and then press form into place.

5. Before erecting the forms, cover them with EXTRA HEAVY COATS OF PASTE WAX. Forms can be shellacked before waxing to improve release. Keep wax off concrete and steel surfaces. As an alternative to waxing, a polyethylene or other nonbondable film may be used as a release agent. The top of the form should extend at least 3/4" (19 mm) above the bottom of the rail or plate. Seal all forms with putty, foam, or caulk.
6. Expansion joints will reduce the possibility of cracking. On multiple soleplate installations, each soleplate may be isolated. Expansion joints can be made with any material that is resistant to oils and chemicals in the environment and will not allow penetration to the concrete foundation. Oil resistant, closed-cell foam works best.
7. For more information, refer to Appendix MB-12: Expansion Joint Recommendations or contact your BASF representative.

DEEP-POUR RECOMMENDATIONS

8. Where a deep pour is necessary, 3/8 – 1/2" (9.5 – 13 mm) rebar on 8 – 12" (203 – 305 mm) centers may be used to minimize stress cracking. Locate a bottom tier about 2" (51 mm) above the foundation surface. Space additional tiers, if required, at equal distances in the grout pour, with vertical supports as required. All rebar must be 2" (51 mm) from any grout surface.
9. For deep pours, let existing rebar protrude from the foundation on 12 – 18" (305 – 457 mm) centers around the perimeter and about 6 – 12" (152 – 305 mm) in from the edge. This will tie the deep pour to the foundation. The first pour should be within 2 – 3" (51 – 76 mm) of the bottom of the base. The final pour should not be made until the first pour is hard and has returned to ambient temperature, usually within 24 – 30 hours. For deep-pour applications or situations that preclude the installation of rebar, consider using Masterflow® 678 DP Plus (see Form No. 1019404).

Mixing

1. AGGREGATE MUST BE COMPLETELY DRY. Store under cover and on pallets. Before using, check aggregate for moisture by squeezing a handful.
2. Precondition all components to 70° F for 24 hours before using.
3. Depending upon the size of the equipment, a suitable crew will consist of 3 workers for mixing and transporting and 4 workers (2 crews of 2 workers) for placement.
4. Pour the hardener into a pail of grout resin and stir until well mixed (approximately 3 minutes). Keep the mixing paddle submerged to avoid air entrainment.
5. Pour the mixture into the mixer without delay.
6. Add the grout aggregate, 1 bag at a time, and mix until completely wet (approximately 2 minutes). The first batch may be slightly less fluid than later batches because some of the resin is absorbed in wetting the mixer. Withholding 1/2 – 1 bag of aggregate from the first batch of a full unit will compensate for lost resin. WHEN MIXING AGGREGATE WITH THE PREMIXED RESIN AND HARDENER, POUR THE AGGREGATE INTO THE MIXING VESSEL AFTER THE PREMIXED RESIN AND HARDENER HAVE BEEN PLACED IN THE VESSEL.
7. Adjust the amount of aggregate used for the temperature and type of pour. The temperature of the grout, foundation, and equipment base are more important than the air temperature because they will affect the grout flow rate. The required flow is related to the grout thickness (between the foundation and base) and the flow distance. The maximum amount of aggregate should be used that will still produce sufficient flow. Lower temperatures reduce flow, so reduce the amount of aggregate used to compensate for the increased viscosity. Large open areas or deep grout pours with short-flow distances will not require the same amount of flow and should be done with higher amounts of aggregate.

8. The following recommendations provide general guidelines on the amount of aggregate that can be excluded from a full-size (4 bag) unit. (In some cases, it may be desirable to add aggregate to the unit.) One gallon (3.8 L) of aggregate weighs approximately 15 lbs (6.8 kg).

9. Pour the grout into a wheelbarrow or buckets for transporting to the pour-site. Remove it from the wheelbarrow within 10 – 15 minutes or it will be more difficult to place. The grout will not harden as rapidly after pouring because the concrete and the engine base tend to dissipate the heat and slow hardening.

10. After the job is complete, clean the mixer, wheelbarrow, and tools with acetone, MEK, or lacquer thinner. Use proper safety procedures when using flammable solvents for cleaning.

Working Time

The following chart denotes the working time of a fresh grout mix at various ambient temperatures. The working time begins when the hardener is added to the resin. Do not let resin and hardener stand without adding aggregate. This material produces an exothermic reaction (heat-generating). If the material exotherms without aggregate, the temperature can cause decomposition or gassing, releasing potentially hazardous fumes. If the catalyzed resin cannot be used immediately, spread the material over a large open surface, which will allow the heat to dissipate normally.

Working time

TEMPERATURE ° F (° C)	MINUTES
90 (32)	50 – 60
70 (21)	90 – 120
50 (10)	120 – 150

Application

HOT-WEATHER GROUTING

1. Avoid high temperatures while grouting in the summer. High ambient temperatures will increase the amount of cracking, especially during the colder winter months.
2. If the packaged grout is above 90° F (32° C), chill the sealed pails of grout resin in a tub of ice or cover the pails with water-soaked burlap. It is not necessary to cool the grout below 70° F (21° C).
3. PROVIDE SHADE FROM DIRECT SUNLIGHT FOR AT LEAST 24 HOURS BEFORE AND 48 HOURS AFTER GROUTING.

COLD-WEATHER GROUTING

1. Temperatures below 60° F (16° C) make the grout stiff and hard to handle and significantly increase the cure time. The baseplate and foundation may be much cooler than room temperature. In cold weather, store materials in a warm place. For best handling, the grout components should be at least 70° F (21° C).
2. When baseplate and foundation temperatures (measured by a contact thermometer) are less than 50° F (10° C), the grout may be so stiff it will not readily flow. Flowability is also determined by the length and depth of the grout pour, so heating of the area may be necessary, depending on field conditions.
3. If heating is required, construct an enclosure (typical materials are polyethylene or canvas) around the equipment and foundation to be grouted. Forced air or infrared heaters may be used to obtain the necessary heat to increase the baseplate and foundation temperatures to 50 to 70° F (10 to 21° C). Avoid local hot spots. Apply heat 1 – 2 days in advance of grouting to achieve uniform baseplate and foundation temperatures. Avoid exposure to products of combustion. Remove heat during grouting placement.
4. For temperatures from 40 to 50° F (4 to 10° C), consider using Masterflow® 648 CP Grout Accelerator (see Form No. 1019308).

Placement

1. For flat bottom engines, pour the grout from one side through to the other.
2. When grouting closed areas, prevent air entrapment by starting at one end of the form and filling the cavity completely while advancing toward the other end.
3. Masterflow® 648 CP grout will flow, but it can be aided with pushing tools like banding straps or plywood strips. Push with long, slow strokes rather than short jabs until no air pockets remain under the frames. DO NOT VIBRATE.
4. Where grout cannot be adequately worked to fill the cavity (because of large size or limited space), a head box will greatly assist flow. Use a sturdy wooden box or sheet metal funnel about 1 – 2 ft (0.3 to 0.6 m).
5. Check frequently for leaks. Leaks do not self-seal. If not stopped, they will cause voids.
6. If a multi-pour installation is necessary, sprinkle a

small amount of Masterflow® 648 CP aggregate on the first pour's surface as the grout solidifies. Before placement of the second pour, brush the loose aggregate from the first pour's surface. Another method is to sandblast and brush clean the first pour's surface.

Curing

1. Loosen jack screws and place equipment in operation when design strength of the grout has been achieved.
2. The grout will not harden below a temperature of approximately 35° F (2° C).
3. Water will inhibit the cure and strength of the grout; protect the grout from rain until it hardens.

COLD-WEATHER CURING

1. The foundation and the equipment base will probably be cooler than room temperature unless room temperature has been constant for some time. Use the foundation and engine temperature, therefore, in estimating cure time.
2. Temperatures vary so radically (day vs. night, atmospheric vs. metal surface) that field judgment must still be used as the final measure. Cured grout should have a solid, almost metallic feel when struck with a hammer. Be sure to check as close to the base of the equipment as possible.

Finishing

A smooth finish may be obtained by spraying or brushing the surface with xylene or mineral spirits. Obtain best results by smoothing the surface several times just before the surface of the grout hardens.

Clean Up

Clean tools and mixer with ketone solvents, acetone, or lacquer thinner. Cured material must be removed mechanically.

Typical Installation Procedures For Best Performance

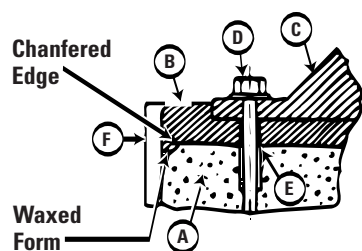


Figure 1 — Regular Equipment

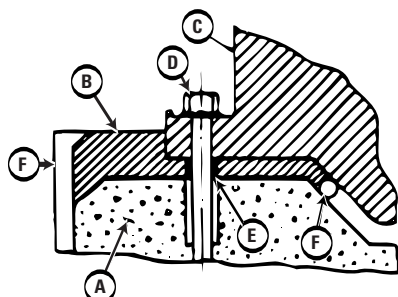


Figure 2 — Engine With Oil Pan

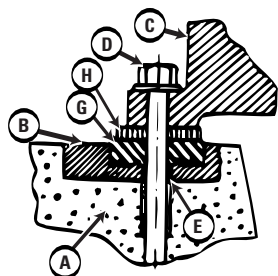


Figure 3 — Rail or Soleplate

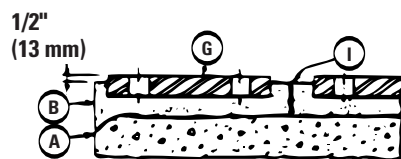


Figure 4 — Typical Rail With Expansion Joint Section

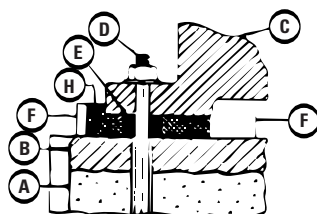


Figure 5 — Typical Epoxy Chock Application

Key

- | | |
|----------------------------|----------------------|
| A. Concrete Foundation | F. Form |
| B. Grout | G. Soleplate or Rail |
| C. Equipment Base | H. Shim or Chock |
| D. Anchor Bolt | I. Expansion Joint |
| E. Anchor Bolt Sleeve Seal | |

- Do not add solvent, water, or any other material to the grout.
- Do not alter the resin or hardener proportions.
- Installation procedures for this material will differ greatly from those for cementitious or inorganic grouts; contact your local representative for a pre-job conference to plan the installation.
- The installation procedures contained in this product data sheet are as specific as possible. They highlight generally accepted, successful field practices for precision grouting. They may be followed, modified, or rejected by the owner, engineer, contractor, or their representative; however, they and not BASF are responsible for planning and executing procedures appropriate for a specific installation.
- When the planned procedures differ from those in this product data sheet, contact your local BASF representative.
- Always use a head box when placing less than 1" (25 mm) depths. The minimum placement thickness is 1/2" (13 mm).
- Do not thin with solvents.
- Substrate temperature must be greater than 50° F (10° C).
- Cold material will exhibit decreased flowability and reduced strength development.
- Do not alter the resin to hardener proportions.
- Masterflow grout and other epoxy-based grouts will sometimes develop cracks. Cracking is generally caused by thermal stresses, temperature differences from season to season, and operating vs. non-operating temperatures. It often occurs on the shoulder surface near sharp corners of the baseplate and at anchor bolts. Horizontal edge cracks may occur just below the grout-concrete interface, especially in outdoor installations exposed to low temperatures. Chamfering the concrete edge helps reduce this cracking. Following proper installation procedures also reduces the amount of potential cracking. If cracks develop, use Masterflow® 648 CP resin and hardener for crack repairs.
- Make certain the most current versions of product data sheet and MSDS are being used; call Customer Service (1-800-433-9517) to verify the most current version.
- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

Health and Safety

MASTERFLOW® 648 CP PART A

WARNING

Masterflow® 648 CP Part A contains epoxy resin, neopentyl glycol diglycidyl ether, furfuryl alcohol

Risks

May cause skin, eye and respiratory irritation. May cause dermatitis and allergic responses. Potential skin and/or respiratory sensitizer. Ingestion may cause irritation. Reports associate repeated or prolonged occupational overexposure to solvents with permanent brain, nervous system, liver and kidney damage. INTENTIONAL MISUSE BY DELIBERATELY INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

Precautions

Use only with adequate ventilation. Avoid contact with skin, eyes and clothing. Keep container closed when not in use. Wash thoroughly after handling. DO NOT take internally. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable Federal, state and local regulations.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

Proposition 65

This product contains materials listed by the State of California as known to cause cancer, birth defects or other reproductive harm.

VOC Content

0 g/L or 0 lbs/gal less water and exempt solvents when components are mixed and applied per Manufacturer's instructions.

MASTERFLOW® 648 CP PART B

DANGER – CORROSIVE

Masterflow® 648 CP Part B contains tall oil fatty acids, reaction products with tetraethylene pentamine; tetraethylene pentamine; triethylenetriamine; 2,4,6 tris(dimethylamino)methyl)phenol

Risks

Contact with skin or eyes may cause burns. Ingestion may cause irritation and burns of mouth, throat and stomach. Inhalation of vapors may cause irritation. May cause dermatitis and allergic responses. Potential skin and/or respiratory sensitizer. Repeated or prolonged contact with skin may cause sensitization. INTENTIONAL MISUSE BY DELIBERATELY INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

Precautions

DO NOT get in eyes, on skin or clothing. Wash thoroughly after handling. Keep container closed. DO NOT take internally. Use only with adequate ventilation. DO NOT breathe vapors. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable Federal, state and local regulations.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

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VOC Content

0 g/L or 0 lbs/gal less water and exempt solvents when components are mixed and applied per manufacturer's instructions.

MASTERFLOW® 648 CP AGGREGATE PART C

WARNING!

Masterflow® 648 CP Part B contains silica, crystalline quartz; almandite garnet; sodium zinc potassium polyphosphate

Risks

May cause skin, eye or respiratory irritation. Ingestion may cause irritation. Contains small free respirable quartz which has been listed as a suspected human carcinogen by NTP and IARC. Repeated or prolonged overexposure to free respirable quartz may cause silicosis or other serious and delayed lung injury.

Precautions

Avoid contact with skin, eyes and clothing. Prevent inhalation of dust. Wash thoroughly after handling. Keep container closed when not in use. DO NOT take internally. Use only with adequate ventilation. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable Federal, state and local regulations.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

Waste Disposal Method

This product when discarded or disposed of is not listed as a hazardous waste in federal regulations. Dispose of in a landfill in accordance with local regulations.

For additional information on personal protective equipment, first aid, and emergency procedures, refer to the product Material Safety Data Sheet (MSDS) on the job site or contact the company at the address or phone numbers given below.

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VOC Content

0 g/L or 0 lbs/gal less water and exempt solvents.

MASTERFLOW® 648 CP ACCELERATOR

DANGER – CORROSIVE

Masterflow® 648 CP Accelerator contains 2,4,6-tris(dimethylamino)methyl)phenol; furfuryl alcohol; bis(dimethylaminoethyl)phenol

Risks

Combustible liquid and vapor. Contact with skin or eyes may cause burns. Ingestion may cause irritation and burns of mouth, throat and stomach. Inhalation of vapors may cause irritation. May cause dermatitis and allergic responses. Potential skin and/or respiratory sensitizer. May be absorbed through skin. Repeated or prolonged exposure increases the risk of absorption. Repeated or prolonged contact with skin may cause sensitization. INTENTIONAL MISUSE BY DELIBERATELY INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

Precautions

KEEP AWAY FROM HEAT, FLAME AND SOURCES OF IGNITION. Vapors are heavier than air. Keep container closed. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Avoid breathing vapors. DO NOT take internally. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable Federal, state and local regulations.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

Proposition 65

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VOC Content

0 g/L or 0 lbs/gal less water and exempt solvents when components are mixed and applied per Manufacturer's instructions.

**For medical emergencies only,
call ChemTrec (1-800-424-9300)**

BASF Construction Chemicals, LLC – Building Systems

889 Valley Park Drive
Shakopee, MN, 55379

www.BuildingSystems.BASF.com

Customer Service 800-433-9517
Technical Service 800-243-6739



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