

# Circuit Frames

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations  
according to Canadian Hazardous Products Regulations (HPR)



## Circuit Frames

### SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Circuit Frame with Bonding Film  
**Product Number:** Variety of Part Numbers  
**Distributor:** BEST Inc  
3603 Edison Place  
Rolling Meadows IL  
(897) 797 9250  
**Emergency Response:** For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident  
Call CHEMTREC Day or Night  
Within USA and Canada: 1-800-424-9300 CCN4877  
Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

### SECTION 2: Hazards identification

**Classifications:** Classification according to Regulation(EC)No1272/2008  
Classifications applicable to the OSHA GHS Hazard Communication Standard (29CFR1910.1200)

**Potential Health Effects:** As a part of the hazard assessment process, an industrial hygiene study was conducted to monitor the potential exposure to the off-gases from this product during normal use. Conclusions from the results of these studies indicate that exposure levels during press lamination using adequate ventilation were well below regulated limits (e.g. an order of magnitude below the exposure limit). Tests run for nuisance dust levels also indicated exposure levels well below regulated limits. As a result of this test data, the potential exposure to the vapors and dusts of this product is minimal.

**Inhalation:** Inhalation may cause irritation of the upper respiratory passages, with sneezing, coughing and discomfort; or temporary lung irritation effects with cough, discomfort, difficulty breathing, or shortness of breath. Inhalation, ingestion or skin contact may cause temporary mild depression of the central nervous system with dizziness, confusion, incoordination or drowsiness followed by an asymptomatic period usually ranging from 12 to 24 hours. There are reports that suggest headache, hearing loss and vertigo (dizziness) in workers exposed to less than 110 ppm of 1-Butanol.

**Eyes:** Eye contact with high concentrations of vapors may cause eye irritation with discomfort, tearing or blurring of vision.

**Skin:** Skin contact may cause redness of the skin and dermatitis with itching or rash. Evidence from animal testing on some vapor components suggests that skin permeation can occur in amounts capable of producing the effects of systemic toxicity.

**Carcinogenicity Information:** None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

### SECTION 3: Composition/information on ingredients

Chemical Name	CAS
* Phenol	108-95-2
* 1-BUTANOL	71-36-3
* BUTYL ACRYLATE	141-32-2
BENZOPHENONE	119-61-9

\* Disclosure as a toxic chemical is required under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

# Circuit Frames

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations  
according to Canadian Hazardous Products Regulations (HPR)

### Components (Remarks)

This product is shipped in very small quantities, typically less than 10 square inches. The quantity of vapors is estimated to be 10-15 lbs per 100,000 sq feet of adhesive. Vapor evolution results are based on the percentage of weight loss measured by Thermal Gravimetric Analysis (TGA). This weight loss includes water vapor. The pounds of vapor are not all "VOC's" as "defined" by the EPA for Clean Air Act purpose.

### SECTION 4: First aid measures

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.  
**Eye Contact:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.  
**Skin Contact:** Flush skin with water after contact. Wash contaminated clothing before reuse.  
**Ingestion:** Ingestion is not considered a potential route of exposure.

### SECTION 5: Firefighting measures

**Flammable limits in Air, % by Volume:** LEL: not determined UEL: not determined  
**Fire Fighting Instructions:** Evacuate personnel to a safe area. Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus. Runoff from fire control may be a pollution hazard.  
**Extinguishing Media:** Use media appropriate for surrounding material.

### SECTION 6: Accidental release measures

**Safeguards (Personnel):** Review FIRE FIGHTING MEASURES and HANDLING sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

### SECTION 7: Handling and storage

**Handling:** Do not breathe vapor or mist. Do not breathe dust. Do not get in eyes. Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material. Good industrial hygiene procedures include washing hands after handling.  
**Storage Temperature:** 40°F - 85°F.  
**Storage:** Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material.

### SECTION 8: Exposure controls/personal protection

**Engineering Controls:** Use only with adequate ventilation.  
**Personal Protective Equipment:** Eye/Face: Safety Glasses. Respirator: Use adequate ventilation when cutting or heating.  
**Applicable Exposure Limits**  
**PHENOL:** PEL (OSHA) : 5 ppm, 19 mg/m<sup>3</sup>, 8 Hr. TWA, Skin  
TLV (ACGIH) : 5 ppm, 19 mg/m<sup>3</sup>, 8 Hr. TWA, Skin, A4  
**1-BUTANOL:** PEL (OSHA) : 100 ppm, 300 mg/m<sup>3</sup>  
TLV (ACGIH) : 20 ppm, 8 Hr. TWA  
**BUTYL ACRYLATE:** PEL (OSHA) : None Established  
TLV (ACGIH) : 2 ppm, 8 Hr. TWA, A4, SEN  
**BENZOPHENONE:** PEL (OSHA) : None Established  
TLV (ACGIH) : None Established PEL

### SECTION 9: Physical and chemical properties

**% Volatile:** 2.0 wt% water + vapors listed above.  
**Odor:** None  
**Form:** Solid

### SECTION 10: Stability and reactivity

**Chemical Stability:** Stable at normal temperatures and storage conditions.  
**Incompatibility with Other Materials:** None reasonably foreseeable.  
**Decomposition:** Decomposes with heat. See composition information for vapor information.  
**Polymerization:** Polymerization can occur. Conditions leading to polymerization are heat and pressure.

# Circuit Frames

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations  
according to Canadian Hazardous Products Regulations (HPR)

### SECTION 11: Toxicological information

**Human Experience:** Information not available.  
**Results of Component Toxicity Test Performed:** Information not available.

### SECTION 12: Ecological information

**Ecotoxicological Information:** Aquatic Toxicity Insoluble

### SECTION 13: Disposal considerations

**Waste Disposal:** Do not burn. Consult with local authorities and regulations.

### SECTION 14: Transport Information

**Shipping Information:** DOT/IMO/IATA Not Regulated.

### SECTION 15: Regulatory information

#### United States Federal Regulations:

**TSCA Inventory Status** In compliance with TSCA Inventory requirements for commercial purposes. State Regulations (U.S.) WARNING - SUBSTANCES KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH

**State Regulations (U.S.):** WARNING - SUBSTANCES KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM- Acrylonitrile- <0.02%

### SECTION 16: Other information

To the best of our knowledge, the information contained herein is accurate. However, neither Best Inc., nor any of its distributors assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.