Safety Data Sheet

Circuit Frame/Bonding Film

CircuitMedic, 22 Parkridge Road, Haverhill, MA 01835 USA
Phone: 978-373-1600 | Website: www.circuitmedic.com
CircuitMedic disclaims all liability associated with the use of this information.

Revision Date: Nov 2, 2021

Section 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name:	Circuit Frame with Bonding Film
Product Number:	Various Product Numbers
Recommended use:	Rolled annealed copper foil .0014" (.036 mm) thick with adhesive backing consisting of a B-staged modified acrylic film adhesive .002" (.051 mm) thick.
Supplier:	CircuitMedic 22 Parkridge Road, Haverhill, MA 01835 USA PHONE: 978-373-1600, FAX: 978-372-5700
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. HAZARD 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 OR INGREDIENTS

Chemical Name	CAS	%
* Phenol	108-95-2	0 - 60%
* Butan-1-ol	71-36-3	0 - 20%
* Butyl Acrylate	141-32-2	1 - 5%
Benzophenone	119-61-9	1 - 10%
Methanol	67-56-1	0 - 40%

* 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.

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. FIRE-FIGHTING 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 AND 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/m3, 8 Hr. TWA, Skin TLV (ACGIH) : 5 ppm, 19 mg/m3, 8 Hr. TWA, Skin, A4
Butan-1-ol:	PEL (OSHA) : 100 ppm, 300 mg/m3 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 EstablishedPEL
Methanol:	PEL (OSHA) : 269 mg.m3 TLV (ACGIH) : 200 ppm TWA TLV (ACGIH) : 250 ppm STEL

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.

Section 11. TOXICOLOGICAL INFORMATION

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

Section 12. ECOLOGICAL INFORMATION

Ecotoxicological Information:	Aquatic Toxicity Insoluble

ection 13. DISPOSAL CONSIDERATIONS

Waste Disposal:	Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Do not burn.

Section 14. TRANSPORT INFORMATION

Shipping Information:	DOT/IMO/IATA Not Regulated.

United States Federal Regulations:

Section 15. REGULATORY INFORMATION

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

Label Information	
European risk and Safety Phrases:	N/A
European Symbols Needed:	N/A
Canadian WHIMS Symbols:	N/A
Abbreviations Used in this Document:	NE - Not Established, NA - Not Applicable/Not Available, NIF - No Information Found
References:	Code of Federal Regulations (CFR) The Sigma-Aldrich Library of Regulatory and Safety Data Chemical Guide and OSHA Hazard Communication Standard Various Federal, State & Local Regulations

hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Safety Data Sheet

Circuit Frame/Bonding Film

CircuitMedic, 22 Parkridge Road, Haverhill, MA 01835 USA
Phone: 978-373-1600 | Website: www.circuitmedic.com
CircuitMedic disclaims all liability associated with the use of this information.

Revision Date: Nov 2, 2021