



MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: BUEHLER EPOHEAT RESIN
 IDENTIFICATION NUMBER: 20-8120-032
 PRODUCT USE/CLASS: Epoxy resin

SUPPLIER:
 BUEHLER, a division of Illinois Tool Works Inc.
 41 WAUKEGAN ROAD
 LAKE BLUFF, IL 60044

EMERGENCY: 800-424-9300
 INFORMATION: 847-295-6500
 PREPARER: Technical Department, 847-295-6500
 PREPARE DATE: 7/20/2012, 20 July 2012

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

ITEM	CHEMICAL NAME	CAS NUMBER	WT/WT%			
01	Epoxy Resin Blend	MIX	60 - 90			
02	Dibutyl Phthalate	84-74-2	10 -20			
ITEM	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL - CEILING	COMPANY TLV-TWA	SKIN
01	N.E.	N.E.	N.E.	N.E.	N.E.	NO
02	5 mg/m3	N.E.	5 mg/m3	N.E.	5 mg/m3	NO

(SEE SECTION 16 FOR ABBREVIATION LEGEND)

SECTION 3 – HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Harmful to aquatic organisms. Harmful if swallowed. May cause target organ or system damage. Refer to chronic health effects section. Causes skin and eye irritation. May cause allergic skin reaction. May cause skin and eye irritation.

ACUTE EFFECTS – EYE CONTACT: Irritating, but will not permanently injure eye tissue.

ACUTE EFFECTS - SKIN CONTACT: Prolonged contact may cause defatting and redness. Strong skin sensitizer; may cause redness and rash leading to scaling.

ACUTE EFFECTS – INHALATION: Vapors and/or aerosols formed at elevated temperatures can be irritating.

ACUTE EFFECTS - INGESTION: Harmful if swallowed.

CHRONIC OVEREXPOSURE EFFECTS: Preexisting dermatological disorders may be aggravated by overexposure to hazardous components. *Overexposure to dibutylphthalate has been suggested as a cause of the following effects in laboratory animals: female reproductive effects, effects on female fertility, testis damage, kidney abnormalities, lung effects, and mild, reversible effects on the liver and red blood cells.

OTHER INFORMATION: Clean clothing to cover skin. Eye wash and safety shower.

PRIMARY ROUTE(S) OF ENTRY: SKIN CONTACT, EYE CONTACT

SECTION 4 – FIRST AID MEASURES

EYE CONTACT: Flush eye with water for 15 minutes. Get medical attention

SKIN CONTACT: Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse

INHALATION: If symptoms occur, remove to fresh air. Medical personnel may administer oxygen if breathing is difficult. Seek medical attention if symptoms persist.

INGESTION: If swallowed, do NOT induce vomiting. Give victim a glass of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

NOTES TO PHYSICIAN: Treat symptomatically.

SECTION 5 – FIRE FIGHTING MEASURES

FLASH POINT: 132 (DEG C)

LOWER EXPLOSIVE LIMIT: No Data

UPPER EXPLOSIVE LIMIT: No Data

AUTOIGNITION TEMPERATURE: No Data

EXTINGUISHING MEDIA: ALCOHOL FOAM, CO2, DRY CHEMICAL, FOAM, WATER FOG

UNUSUAL FIRE AND EXPLOSION HAZARDS: Closed containers may rupture or explode (due to pressure build-up) when exposed to extreme heat. Irritating and/or toxic gases or fumes may be generated by thermal decomposition or combustion.

SPECIAL FIREFIGHTING PROCEDURES: Use NIOSH-approved self-contained breathing apparatus and full protective clothing. Use water to cool exposed containers. Water stream directed into fire may cause frothing with subsequent spread of flame.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Mark area and keep unnecessary personal away from spill area. Reclaim clean material. Absorb with inert material, such as clay. Sweep or shovel into loosely covered waste container and remove to appropriate waste area. Dispose of in accordance with federal, state, and local regulations. Contact manufacturer for further instructions.

PERSONAL PRECAUTIONS: SMALL SPILL – Wear gloves and goggles. See Section 8 for type. LARGE SPILL – Wear gloves, boot covers, synthetic apron, and goggles. See Section 8 for type.

ENVIRONMENTAL PRECAUTIONS: Prevent entry into drains and/or waterways. Keep off of soil.

SECTION 7 – HANDLING AND STORAGE

HANDLING Avoid contact with eyes, skin, and clothing. Remove contaminated clothing and wash before reuse. Contaminated leather articles should be disposed of. If product is heated, process with local ventilation. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. DO NOT reuse empty container without commercial clean or recondition. FOR INDUSTRIAL USE ONLY.

STORAGE: Store indoors in a cool dry place under ambient conditions. Keep container closed when not in use

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Local exhaust as needed to control vapor or dust levels to below lowest component safe exposure limit.

RESPIRATORY PROTECTION: If TLV/PEL is exceeded, if use is performed in a poorly-ventilated space, or if inhalation effects occur, use approved vapor cartridge respirator in accordance with applicable health and safety regulations and manufacturer's recommendations.

SKIN PROTECTION: Butyl rubber gloves. Nitrile gloves. Supported PVA gloves.

EYE PROTECTION: Chemical splash goggles.

OTHER PROTECTIVE EQUIPMENT: Accessible eye wash and safety shower.

HYGIENIC PRACTICES: Follow good general industrial safety practices during use. Do not smoke or eat during use.

DO NOT reuse empty containers without commercial clean or recondition. Follow all MSDS/label precautions even after container is emptied.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

BOILING RANGE:	No Data	VAPOR DENSITY:	Heavier than Air
ODOR:	Mild nondescript	ODOR THRESHOLD:	No Data
APPEARANCE:	Yellow	EVAPORATION RATE:	Is slower than Butyl Acetate
SOLUBILITY IN H₂O:	Insoluble		
FREEZE POINT:	No Data	SPECIFIC GRAVITY:	1.138
VAPOR PRESSURE:	No Data	pH @ 0.0%:	N.A.
PHYSICAL STATE:	Thin liquid	VISCOSITY:	Low
COEFFICIENT OF WATER/OIL DISTRIBUTION:	No Data		

(SEE SECTION 16 FOR ABBREVIATION LEGEND)

SECTION 10 – STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Prolonged exposure to heat may cause separation.

INCOMPATIBILITY: Strong bases or oxidants. Strong Lewis or mineral acids.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

SECTION 11 – TOXICOLOGICAL PROPERTIES

COMPONENT TOXICOLOGICAL INFORMATION

----- CHEMICAL NAME -----	TEST DATA
Epoxy Resin mix -----	No Information
Dibutyl Phthalate -----	Oral LD50 (rat) = 9.0 g/kg Dermal LD50 (rabbit) > 20.9 g/kg Inhalation LC50 (rat) 4.25 g/kg

SECTION 12 – ECOLOGICAL INFORMATION

COMPONENT ECOLOGICAL INFORMATION:

----- CHEMICAL NAME -----	TEST DATA
Epoxy Resin blend -----	No Information
Dibutyl Phthalate -----	Fish LC50-96hr (fathead minnow) = 0.85 mg/l Invertebrate LC50-48hr (daphnia magna) = 3.7 mg/l Bioconcentration factor (BCF) = 2165

SUMMARY OF ECOLOGICAL INFORMATION:

BIOACCUMULATION POTENTIAL: No information indicating bioaccumulation

PERSISTENCE AND DEGRADABILITY: No information indicating persistence or degradability

AQUATIC TOXICITY: H400 Very toxic to aquatic life

SECTION 13 – DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Review all current federal, state, and local regulations regarding health and disposal for appropriate disposal procedures. For small amounts, mix resin and hardener according to product directions and allow to harden. When cured, product is non-hazardous, and may be placed in industrial or municipal landfill if local regulations permit. Material "as sold" is not regulated as a hazardous waste under federal RCRA regulations. DO NOT landfill free liquid. Fuels blending or incineration of free liquid recommended if permitted.

SECTION 14 – TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: Not considered a hazardous material for shipping in containers less than 100 lbs. each.

DOT TECHNICAL NAME: N.A.

HAZARD SUBCLASS: N.A.

DOT HAZARD CLASS: N.A.

PACKAGING GROUP: III

DOT UN/NA CLASS: N.A.

RESP. GUIDE PAGE:

INTERNATIONAL SHIPPING NAME: Environmentally hazardous substance, nos (dibutyl phthalate)

INTERNATIONAL ID NUMBER: UN3082

IMDG CLASS (1°, 2°): N.A.

IMDG PAGE NUMBER: N.A.

IMDG EMS: N.A.

IATA CLASS (1°, 2°): N.A.

SECTION 15 – REGULATORY INFORMATION

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

CERCLA – SARA HAZARD CATEGORY: THIS PRODUCT HAS BEEN REVIEWED, AND IS CONSIDERED, UNDER APPLICABLE DEFINITIONS, TO MEET THE FOLLOWING CATEGORIES: IMMEDIATE HEALTH HAZARD CHRONIC HEALTH HAZARD

SARA SECTION 313: THIS PRODUCT CONTAINS THE FOLLOWING SUBSTANCES SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 AND 40 CFR PART 372:

CHEMICAL NAME -----CAS NUMBER

Dibutyl Phthalate84-72-2

TOXIC SUBSTANCE CONTROL ACT: THE CHEMICAL SUBSTANCES IN THIS PRODUCT ARE ON THE TSCA SECTION 8 INVENTORY. THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL SUBSTANCES SUBJECT TO THE REPORTING REQUIREMENTS OF TSCA 12(B) IF EXPORTED FROM THE UNITED STATES: None

SECTION 15 – REGULATORY INFORMATION

NEW JERSEY RIGHT-TO-KNOW: THE FOLLOWING MATERIALS ARE NON-HAZARDOUS, BUT ARE AMONG THE TOP 5 COMPONENTS IN THIS PRODUCT:

PENNSYLVANIA RIGHT-TO-KNOW: THE FOLLOWING NON-HAZARDOUS INGREDIENTS ARE PRESENT IN THE PRODUCT AT GREATER THAN 3%:

CALIFORNIA PROPOSTION 65: Contains a substance known to the State of California to cause reproductive harm.

CANADIAN WHMIS: THIS MSDS HAS BEEN PREPARED IN COMPLIANCE WITH CONTROLLED PRODUCT REGULATIONS EXCEPT FOR USE OF THE 16 HEADINGS.

CANADIAN WHMIS CLASS: D2A

COMPONENT RCRA CLASSIFICATIONS: Not regulated

COMPONENT RCRA CODES: None

CERCLA RQ VALUE (MINIMUM): None

SECTION 16 – OTHER INFORMATION

HMIS RATINGS

HEALTH: 2

FLAMMABILITY: 1

REACTIVITY: 0

PREVIOUS MSDS REVISION DATE: 3/23/2009, 23 March 2009

REASON FOR REVISION: Revised sections: 2, 5, 6, 7, 9, 14 & 15

VOLATILE ORGANIC COMPOUNDS: 0 grams/ltr (calculated)

LEGEND:

N.A. – NO INFORMATION

N.E. – NOT ESTABLISHED

N.D. – NOT DETERMINED

ABBREVIATIONS: ACGIH = AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS; OSHA = OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION; TLV-TWA = THRESHOLD LIMIT VALUE – TIME WEIGHTED AVERAGE (8 HOURS); STEL = SHORT-TERM EXPOSURE LIMIT (15 MINUTES); C = CEILING VALUE; PEL = PERMISSIBLE EXPOSURE LIMIT

DISCLAIMER: TO THE BEST OF OUR KNOWLEDGE, THE INFORMATION CONTAINED IN THIS MSDS IS ACCURATE OR IS OBTAINED FROM SOURCES BELIEVED TO BE ACCURATE. HOWEVER, NO LIABILITY, EXPRESSED OR IMPLIED, IS ASSUMED FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION CONTAINED HEREIN. BUYER ASSUMES LIABILITY IN ITS USE OF THE MATERIAL.