



MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: BUEHLER EPOXICURE RESIN

IDENTIFICATION NUMBER: 20-8130-032 & 20-8130-128

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: 7/10/2012, 10 July 2012

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

ITEM	CHEMICAL NAME	CAS NUMBER	WT/WT%			
01	Glycidyl ether	2426-08-6	10 - 20			
02	Epoxy resin	25068-38-6	50 - 0100			
ITEM	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL - CEILING	COMPANY TLV-TWA	SKIN
01	3 ppm	N.E.	25 ppm	N.E.	N.E.	NO
02	N.E.	N.E.	N.E.	N.E.	N.E.	NO

(SEE SECTION 16 FOR ABBREVIATION LEGEND)

SECTION 3 – HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: May cause severe skin and eye irritation. At elevated temperatures, vapors are irritating to the eyes and respiratory tract. May cause allergic skin reaction. Toxic to aquatic organisms.

ACUTE EFFECTS – EYE CONTACT: Irritating to eyes with redness, swelling and stinging. If not removed promptly, may cause injury.

ACUTE EFFECTS - SKIN CONTACT: Contact causes skin irritation with redness, swelling and scaling. May be absorbed through skin in harmful amounts.

ACUTE EFFECTS – INHALATION: Vapors and/or aerosols formed at elevated temperatures can be irritating. High gas, vapor, mist or dust concentrations may be harmful if inhaled.

ACUTE EFFECTS - INGESTION: Small amounts (a tablespoonful) swallowed during normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury.

CHRONIC OVEREXPOSURE EFFECTS: *n-butyl Glycidyl Ether has been found to be mutagenic in "in-vitro" assays. Mutagenicity tests in mice did not support genotoxic categorization at non-lethal doses.

OTHER INFORMATION:

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

SECTION 4 – FIRST AID MEASURES

EYE CONTACT: Flush eye with water for 15 minutes. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/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: 73 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: Wear a NIOSH approved positive pressure self-contained breathing apparatus with full protective clothing. Do not release runoff from fire control methods to sewers or waterways. 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: SMALL SPILL: Scoop up or wipe up. Clean area and reusable tools with detergent solution. ENVIRONMENTAL PRECAUTIONS: Prevent entry into drains and/or waterways. Keep off of soil.

LARGER SPILL: 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.

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 Nitrile gloves. Neoprene gloves. Butyl rubber gloves.

EYE PROTECTION: Safety glasses with side shields or chemical splash goggles.

OTHER PROTECTIVE EQUIPMENT: Clean clothing to cover skin. 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

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

BOILING RANGE:	500 Deg F	VAPOR DENSITY:	Heavier than Air
ODOR:	Mild nondescript	ODOR THRESHOLD:	No Data
APPEARANCE:	Clear pale yellow	EVAPORATION RATE:	Is slower than Butyl Acetate
SOLUBILITY IN H ₂ O:	Negligible		
FREEZE POINT:	< 32 degree	SPECIFIC GRAVITY:	1.129
VAPOR PRESSURE:	No Data	pH @ 0.0%:	No Data
PHYSICAL STATE:	Thin liquid	VISCOSITY:	Medium
COEFFICIENT OF WATER/OIL DISTRIBUTION:	No data		

(SEE SECTION 16 FOR ABBREVIATION LEGEND)

SECTION 10 – STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Strong bases or oxidants. Strong Lewis or mineral acids.

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

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon. Aldehydes and acids from incomplete combustion. Phenolic compounds.

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.....	Oral LD50, Rat = 13.6 g/kg. Inhalation LC50 (rat) = No deaths in saturated ir (4 hrs)
N-butyl glycidyl ether.....	Inhalation LC50 (rat)-8Hr > 670 ppm Dermal LD50 (rabbit) = 788 mg/mg Oral LD50 (mouse) = 2.0 g/kg

SECTION 12 – ECOLOGICAL INFORMATION

COMPONENT ECOLOGICAL INFORMATION:

----- CHEMICAL NAME-----	TEST DATA
N-butyl glycidyl ether.....	No Information
Epoxy resin	No Information

SUMMARY OF ECOLOGICAL INFORMATION:

BIOACCUMULATION POTENTIAL: No information indicating bioaccumulation

PERSISTENCE AND DEGRADABILITY: No information indicating persistence or degradability

AQUATIC TOXICITY: H401 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: If resin and hardener are available, mix and cure in accordance with product directions. When cured, product is non-hazardous, and may be placed in industrial or municipal landfill if local regulations permit.

FOR LARGE AMOUNTS: Product disposed of "as sold" is not considered 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 dangerous good for transport	
DOT TECHNICAL NAME: N.A.	HAZARD SUBCLASS: N.A.
DOT HAZARD CLASS: N.A.	PACKAGING GROUP: N.A.
DOT UN/NA CLASS: N.A.	RESP. GUIDE PAGE: N.A.
INTERNATIONAL SHIPPING NAME: Not regulated	
INTERNATIONAL ID NUMBER: N.A.	
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

<p><u>OSHA</u>: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).</p> <p><u>CERCLA – SARA HAZARD CATEGORY</u>: THIS PRODUCT HAS BEEN REVIEWED, AND IS CONSIDERED, UNDER APPLICABLE DEFINITIONS, TO MEET THE FOLLOWING CATEGORIES: IMMEDIATE HELATH HAZARD.</p> <p><u>SARA SECTION 313</u>: THIS PRODUCT CONTAINS THE FOLLOWING SUBSTANCES SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 AND 40 CFR PART 372:</p> <p>CHEMICAL NAME -----CAS NUMBER ----- WT/WT % IS LESS THAN</p> <p>No SARA Section 313 components exist in this product.</p> <p><u>TOXIC SUBSTANCE CONTROL ACT</u>: 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:</p> <p>CHEMICAL NAME -----CAS NUMBER</p> <p>No compounds found</p>
<p><u>CALIFORNIA PROPOSTION 65</u>: No Proposition 65 chemicals known to exist in this product.</p> <p><u>CANADIAN WHMIS</u>: THIS MSDS HAS BEEN PREPARED IN COMPLIANCE WITH CONTROLLED PRODUCT REGULATIONS EXCEPT FOR USE OF THE 16 HEADINGS.</p> <p>CANADIAN WHMIS CLASS: D2B, B3</p> <p><u>COMPONENT RCRA CLASSIFICATIONS</u>: Not Regulated</p> <p><u>COMPONENT RCRA CODES</u>: Not Applicable</p> <p><u>CERCLA RQ VALUE (MINIMUM)</u>: Not Applicable</p>

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: 1, 2, 3, 9, 11, 12, 15, & 16

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

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