



MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: BUEHLER EpoxiCure NC Resin

IDENTIFICATION NUMBER: 20-8150-032

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: 11/01/2012, 01 November 2012

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

ITEM	CHEMICAL NAME	CAS NUMBER	WT/WT%
01	Alkyl glycidyl ether	Trade Secret	10.0 - 30.0
02	Neopentyl Glycol Diglycidyl Ether	17557-23-2	10.0 - 30.0
03	Epoxy Resin	Trade Secret	60.0 - 100.0

SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

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	N.E.	N.E.	N.E.	N.E.	N.E.	NO
03	N.E.	N.E.	N.E.	N.E.	N.E.	NO

(SEE SECTION 16 FOR ABBREVIATION LEGEND)

SECTION 3 – HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Harmful if swallowed. Causes skin irritation. May cause allergic skin reaction. Prolonged contact may cause eye injury.

ACUTE EFFECTS – EYE CONTACT: Contact may cause injury to eye tissue if not removed promptly.

ACUTE EFFECTS - SKIN CONTACT: Contact causes skin irritation. Repeated or prolonged contact may cause sensitization. Moderate irritant. Prolonged contact may cause dermatitis

ACUTE EFFECTS – INHALATION: Liquid aspirated into lungs may cause serious injury or death. High vapor concentrations are irritating to the eyes, nose, throat and lungs.

ACUTE EFFECTS - INGESTION: May cause nausea and vomiting. Harmful if swallowed.

CHRONIC OVEREXPOSURE EFFECTS: *Pre-existing pulmonary and dermatological disorders may be aggravated by exposure to hazardous components. *Neopentyl glycol diglycidyl ether was found to be carcinogenic in skin painting tests on mice. Mutagenic "in-vitro." *Contains a substance or substances shown to be mutagenic in in-vitro (test tube) assays.

OTHER INFORMATION: No information

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

SECTION 4 – FIRST AID MEASURES

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation persists.

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: 220 F (Pensky-Martens C.C.)

LOWER EXPLOSIVE LIMIT: N.A.

UPPER EXPLOSIVE LIMIT: N.A.

AUTOIGNITION TEMPERATURE: No data.

EXTINGUISHING MEDIA: Alcohol Foam, CO₂, Dry Chemical, 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. 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: Reclaim clean material. Absorb with inert material, such as clay. Contaminated material should be swept or shoveled into appropriate waste container and disposed of in accordance with applicable federal, state and local regulations. Dispose of in accordance with federal, state, and local regulations. Harmful to aquatic organisms. Prevent entry into drains and/or waterways.

SECTION 7 – HANDLING AND STORAGE

HANDLING: Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid contact with eyes, skin, and clothing. **FOR INDUSTRIAL USE ONLY.**

STORAGE: Store in a cool, dry area. Avoid Ignition Sources. Keep Container Closed When Not In Use. Store away from heat.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: General ventilation is usually adequate. Local exhaust as needed to control vapor or dust levels to below lowest component TLV.

RESPIRATORY PROTECTION: If exposure levels are unknown, if levels exceed TLV/PEL, or if effects occur, use NIOSH-approved dust/mist respirator in accordance with applicable health and safety regulations and manufacturer's recommendations.

SKIN PROTECTION: Butyl rubber gloves. Neoprene gloves. Nitrile gloves.

EYE PROTECTION: Eye protection (i.e., safety glasses, safety goggles and/or face shield) should be determined based on conditions of use.

OTHER PROTECTIVE EQUIPMENT: Accessible eye wash and safety shower.

HYGIENIC PRACTICES: Follow good general industrial safety practices 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:	392 – 580 F	VAPOR DENSITY:	Is heavier than air
ODOR:	Sweet	ODOR THRESHOLD:	No data.
APPEARANCE:	Clear thin yellow	EVAPORATION RATE:	Is slower than Butyl Acetate
SOLUBILITY IN H ₂ O:	Negligible		
FREEZE POINT:	No data	SPECIFIC GRAVITY:	1.129
VAPOR PRESSURE:	<0.1 mm@20 degC	pH @ 0.0%:	N.A.
PHYSICAL STATE:	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.

INCOMPATIBILITY: Strong Lewis or mineral acids. Strong bases or oxidants. Reaction with amines and mercaptans in large amounts or under uncontrolled conditions releases considerable heat and may release acrid fumes

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	----LD50----	----LC50----
Alkyl glycidyl ether.....	Derm-rbt >4.5 g/kg	rat >1.5mg/l/4Hr
Neopentyl Glycol Diglycidyl Ether	Oral(rat)4.5g/kg	No information
Bisphenol-F epoxy resin	Oral-rat= > 2 g/kg	No data

SECTION 12 – ECOLOGICAL INFORMATION

ECOLOGICAL TEST DATA: No information.

SECTION 13 – DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Review all current federal, state, and local regulations regarding health and disposal for appropriate disposal procedures. When cured, product is non-hazardous, and may be placed in industrial or municipal landfill if local regulations permit.

SECTION 14 – TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: Not regulated 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:
INTERNATIONAL SHIPPING NAME: Not considered a dangerous good for transport.	
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 Health 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>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> <table style="width: 100%; border: none;"> <thead> <tr> <th style="text-align: left;">CHEMICAL NAME</th> <th style="text-align: left;">---CAS NUMBER---</th> </tr> </thead> <tbody> <tr> <td>Almyl glycidyl ether.....</td> <td>Trade Secret</td> </tr> <tr> <td>Neopentyl Glycol Diglycidyl Ether</td> <td>17557-23-2</td> </tr> </tbody> </table> <p><u>NEW JERSEY RIGHT-TO-KNOW</u>: THE FOLLOWING MATERIALS ARE NON-HAZARDOUS, BUT ARE AMONG THE TOP 5 COMPONENTS IN THIS PRODUCT:</p> <p>No non-hazardous materials are among the top five ingredients.</p> <p><u>PENNSYLVANIA RIGHT-TO-KNOW</u>: THE FOLLOWING NON-HAZARDOUS INGREDIENTS ARE PRESENT IN THE PRODUCT AT GREATER THAN 3%:</p> <p>No non-hazardous ingredients are present at greater than 3%.</p>	CHEMICAL NAME	---CAS NUMBER---	Almyl glycidyl ether.....	Trade Secret	Neopentyl Glycol Diglycidyl Ether	17557-23-2
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SECTION 15 – REGULATORY INFORMATION

CALIFORNIA PROPOSTION 65: No Proposition 65 chemicals known to exist in this product.

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

CANADIAN WHMIS CLASS: D2B

COMPONENT RCRA CLASSIFICATIONS: Not regulated.

COMPONENT RCRA CODES: No information.

CERCLA RQ VALUE (MINIMUM): No information.

SECTION 16 – OTHER INFORMATION

HMIS RATINGS

HEALTH: 2

FLAMMABILITY: 1

REACTIVITY: 0

PREVIOUS MSDS REVISION DATE: 03/29/2009, 29 March 2009

REASON FOR REVISION: Periodic review. Revised section(s): 1

VOLATILE ORGANIC COMPOUNDS: 0 grams/ltr

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.