



MATERIAL SAFETY DATA SHEET

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: BUEHLER EPOMET F & EPOMET G

IDENTIFICATION NUMBER: EPOMET F: 20-3381-070, 20-3381-160 & 20-3381-400

EPOMET G: 20-3380-064, 20-3380-160 & 20-3380-400

PRODUCT USE/CLASS: Modified epoxy

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: 11/09/2012, 09 November 2012

SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

ITEM	CHEMICAL NAME	CAS NUMBER	WT/WT%
01	Proprietary amine	90-72-2	1.0-2.0
02	Epoxy resin	26265-08-7	10.0-30.0
03	Carbon Black	1333-86-4	.05 max
04	Silica, Vitreous (98% fused: 2% quartz/cristobalite)	60676-86-0	60.0-70.0
05	Titanium dioxide	13463-67-6	0.1-1.0

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	3.5*	3.5 mg/m3*	N.E.	N.E.	N.E.	NO
04	0.1	0.1 mg/m3*	N.E.	N.E.	N.E.	NO
05	N.E.	10 mg/m3*	N.E.	N.E.	N.E.	NO

(SEE SECTION 16 FOR ABBREVIATION LEGEND)

* = Respirable Fraction

SECTION 3 – HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Vapors from heated material may be irritating. Contact with heated material can cause thermal burns. Contact may be irritating. Potential skin sensitizer. Repeated or prolonged overexposure may cause target organ effects. See Chronic Overexposure Effects.

ACUTE EFFECTS – EYE CONTACT: Temporary eye redness and irritation.

ACUTE EFFECTS - SKIN CONTACT:

Acute: Temporary redness, skin irritation and itching through mechanical abrasion.

Chronic: Repeated skin contact can cause an allergic reaction in some individuals.

ACUTE EFFECTS – INHALATION:

Acute: Dust can cause temporary upper respiratory (nose / throat) irritation and sensitization.

Chronic: Repeated or prolonged dust inhalation can cause lung involvement such as pneumoconiosis or silicosis. Carbon black is listed by IARC as a potential cancer-causing agent.

ACUTE EFFECTS - INGESTION Possibly harmful if swallowed. Contact physician if unusual reaction is noted.

CHRONIC OVEREXPOSURE EFFECTS: * Pre-existing medical conditions may be aggravated by mechanical irritants upon inhalation or skin contact.

OTHER INFORMATION: No information.

PRIMARY ROUTE(S) OF ENTRY: Inhalation, ingestion, skin and eye contact

SECTION 4 – FIRST AID MEASURES

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

SKIN CONTACT: For hot product, immediately immerse in or flush the affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention. No attempt should be made to remove material from skin or to remove contaminated clothing as the damaged flesh can be easily torn. For cold material: treat symptomatically.

INHALATION: No specific treatment is necessary since this material is not likely to be hazardous by inhalation. If exposed to excessive levels of dusts or fumes, remove to fresh air and get medical attention if cough or other symptoms develop.

INGESTION: If swallowed, dilute with large amounts of water. DO NOT INDUCE VOMITING. Consult physician if unusual reaction is noted. Never give anything by mouth to an unconscious person.

NOTES TO PHYSICIAN: Treat symptomatically.

SECTION 5 – FIRE FIGHTING MEASURES

FLASH POINT: N.A.

LOWER EXPLOSIVE LIMIT: N.A.

UPPER EXPLOSIVE LIMIT: N.A.

AUTOIGNITION TEMPERATURE: No data.

EXTINGUISHING MEDIA: Water Spray (Fog), Foam, and Carbon Dioxide

UNUSUAL FIRE AND EXPLOSION HAZARDS: Remain upwind. Avoid smoke, which may contain combustible and toxic fumes (oxides of carbon and hydrogen chloride) when burned.

SPECIAL FIREFIGHTING PROCEDURES: Fire fighters should wear full protective gear including eye protection and self-contained breathing apparatus (pressure-demand, MSHA/NIOSH-approved or equivalent). Do not release runoff from fire control methods to sewers or waterways.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Scoop or vacuum material into appropriate containers for recovery or disposal. Keep dust to a minimum. Notify the National Response Center for spills exceeding the Personal Precautions: See Sections 7 & 8 for personal protective measures.

Environmental Precautions: Do not release to sewers or waterways.

SECTION 7 – HANDLING AND STORAGE

HANDLING: Wash thoroughly after handling. Minimize dust generation and accumulation. Avoid breathing dust, vapor, mist or gas. DO NOT take internally. FOR INDUSTRIAL USE ONLY.

STORAGE: Keep away from heat and flame.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: General ventilation usually adequate.

RESPIRATORY PROTECTION: None normally required under general ventilation. NIOSH-approved N95 particulate respirator recommended if grinding or machining solid compound. If use is performed in a poorly-ventilated confined space, or if vapors cause respiratory effects, use NIOSH-approved organic vapor cartridge respirator in accordance with OSHA regulations.

SKIN PROTECTION: Clean clothing to cover skin. Thermal gloves when handling hot material.

EYE PROTECTION: Safety glasses.

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.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

BOILING RANGE:	390 - 500 F	VAPOR DENSITY:	Is heavier than air
ODOR:	Faint phenolic	ODOR THRESHOLD:	N.A.
APPEARANCE:	Black	EVAPORATION RATE:	Is slower than Butyl Acetate
SOLUBILITY IN H ₂ O:	Insoluble		
FREEZE POINT:	N.A.	SPECIFIC GRAVITY:	0.900
VAPOR PRESSURE:	N.A.	pH @ 0.0%:	N.A.
PHYSICAL STATE:	Solid	VISCOSITY:	N.A.
COEFFICIENT OF WATER/OIL DISTRIBUTION:	No data		

(SEE SECTION 16 FOR ABBREVIATION LEGEND)

SECTION 10 – STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Open fire, and strong oxidizing agents such as chlorates, bromates and nitrates.

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

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon. Oxides of nitrogen, ammonia. Aromatic and aliphatic hydrocarbons. 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:

Carcinogenicity: This product is considered as carcinogenic by OSHA, IARC, NTP or ACGIH.

SECTION 12 – ECOLOGICAL INFORMATION

ECOLOGICAL TEST DATA: No information.

SECTION 13 – DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Material as sold may be disposed of in landfill if local regulations permit. If material becomes contaminated, follow disposal instructions for contaminant.

SECTION 14 – TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: Not regulated.

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 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

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:

None

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

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

None

PENNSYLVANIA RIGHT-TO-KNOW: THE FOLLOWING NON-HAZARDOUS INGREDIENTS ARE PRESENT IN THE PRODUCT AT GREATER THAN 3%: None

SECTION 15 – REGULATORY INFORMATION

CALIFORNIA PROPOSTION 65: This product contains a chemical(s) known to the state of California to cause cancer. (Quartz).

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

CANADIAN WHMIS CLASS: D2A

CANADIAN DSL/NDL STATUS: The components of this product are on the DSL.

COMPONENT RCRA CLASSIFICATIONS: Not regulated.

COMPONENT RCRA CODES: No information.

CERCLA RQ VALUE (MINIMUM): None known.

SECTION 16 – OTHER INFORMATION

HMIS RATINGS

HEALTH: 1

FLAMMABILITY: 1

REACTIVITY: 0

PREVIOUS MSDS REVISION DATE: 11/24/2011, 24 November 2012

REASON FOR REVISION: Change in ingredients. Revised Sections 1 & 5

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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