

S A F E T Y D A T A S H E E T

SECTION 1 - IDENTIFICATION OF THE PREPARATION AND THE SUPPLIER

PRODUCT NAME : BUEHLER PHENOCURE PHENOLIC POWDER AND PREMOLDS
 IDENTIFICATION NUMBER: 20-3100 through 20-3133
 PRODUCT USE/CLASS : Molding compound

SUPPLIER:

Buehler UK, Ltd. Saturn Building 101, Lockhurst Lane Coventry CV6 5SF ENGLAND TEL: (+44) (0) 24 7658 2158 FAX: (+44) (0) 24 7658 2159	Buehler GmbH In der Steele 2, 40599 Düsseldorf Postfach 16 03 55, 40599 Düsseldorf Telefon: (+49) 0211-974100 Telefax: (+49) 0211-9741079
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PREPARER: Technical Department, PHONE: +18472955600,
 PREPARE DATE: 10/30/02; 30 Oct. 2002

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

ITEM	CHEMICAL NAME	CAS NUMBER	WT/WT%
01	Graphite Classification: No information; N.E.	7782-42-5	20.0-40.0
02	Carbon Black Classification: No information; N.E.	1333-86-4	5.0-10.0
03	Coal Dust Classification: No information; N.E.	Unknown	10.0-30.0
02	Siliceous Muscovite Mica Classification: No information; N.E.	12001-26-2	30.0-60.0
05	Phenol Classification: T; R24/25-34	108-95-2	3.0-7.0
06	Talc Classification: No information; N.E.	14807-96-6	10.0-30.0

EXPOSURE LIMITS

ITEM	U/K		GERMANY		OTHER	SKIN
	8-HR REL	15-MIN STEL	8-HR MAK	15-MIN MAK	8-HR TWA	
01	2.5 mg/m3	N.E.	2.5 mg/m3	N/E	N.E.	NO
02	3.5mg/m3	N.E.	3.5mg/m3	N/E	N.E.	NO
03	2 mg/m3	N.E.	2.4 mg/m3	N.E.	N.E.	NO
04	3 mg/m3	N.E.	20 mppcf	N.E.	N.E.	NO
05	5 ppm	N.E.	5 ppm	N/E	5 ppm	YES
06	2 mg/m3	N.E.	20 ppm	N/E	2 mg/m3	NO

(See Section 16 for abbreviation legend)

SECTION 3 - IDENTIFICATION OF HAZARDS

EMERGENCY OVERVIEW: (R21/22) Harmful in contact with skin and if swallowed. (R36/38) Irritating to eyes and skin. (R68) Limited evidence of carcinogenic effect.

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

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SECTION 4 - FIRST AID MEASURES

EYE CONTACT: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Have eyes immediately examined and tested by medical personnel.

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: flush with water. Remove and wash contaminated clothing. Seek medical attention if irritation develops or persists.

INHALATION: If effects occur, remove to fresh air. Get medical attention if cough or other symptoms develop.

INGESTION: If swallowed, DO NOT induce vomiting. Get medical attention immediately.

NOTES TO PHYSICIAN: Treat symptomatically.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT: N/A solid LOWER EXPLOSIVE LIMIT: est. 0.1g/m3
(PENSKY-MARTENS C.C.) UPPER EXPLOSIVE LIMIT: N/A %
AUTOIGNITION TEMPERATURE: No data

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

UNUSUAL FIRE AND EXPLOSION HAZARDS: Finely divided dust in air may present explosion hazard. Prevent dust buildup.

SPECIAL FIREFIGHTING PROCEDURES: Treat as petroleum fire. Wear appropriate approved protective equipment. Avoid directing water stream directly into flame; it 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. Contaminated material should be swept or shoveled into appropriate waste container and disposed of in accordance with applicable national, regional, and local regulations.

SECTION 7 - HANDLING AND STORAGE

HANDLING: Use only in a well ventilated area. Minimize dust generation and accumulation. Avoid breathing vapors from heated material. Avoid contact with skin and eyes. Follow good general industrial safety practices during use and handling.

STORAGE: Do not store in direct sunlight. Keep away from direct heat and flame.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: No special ventilation normally required.

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SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION: None normally required under good general industrial ventilation.

SKIN PROTECTION: Clean clothing to cover skin. Rubber or synthetic gloves.

EYE PROTECTION: Safety glasses with side shields.

OTHER PROTECTIVE EQUIPMENT: Not Applicable.

HYGIENIC PRACTICES: Not Applicable.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

BOILING RANGE : 83 - unk C VAPOR DENSITY : Is heavier than air
ODOR : no appreciable ODOR THRESHOLD : No data
APPEARANCE : Solid EVAPORATION RATE: Is slower than Butyl Acetate
SOLUBILITY IN H2O : Negligible
FREEZE POINT : N/A SPECIFIC GRAVITY: 1.8391
VAPOR PRESSURE : N/A pH @ 0.0 % : N/A
PHYSICAL STATE : Solid VISCOSITY : N/A
COEFFICIENT OF WATER/OIL DISTRIBUTION: N/a
(See Section 16 for abbreviation legend)

SECTION 10 - STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Not Applicable.

INCOMPATIBILITY: Strong bases or oxidants.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon. Toxic monomers. Aromatic and aliphatic hydrocarbons.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

SECTION 11 - TOXICOLOGICAL INFORMATION

COMPONENT TOXICOLOGICAL INFORMATION:

CHEMICAL NAME	LD50	LC50
Graphite	Not Applicable	Not Applicable
Siliceous Muscovite Mica	Not Applicable	Not Applicable
Carbon Black	Not Applicable	Not Applicable
Coal	No information	No information
Phenol	derm(rbt)500mg/24H	Not Applicable
Talc	derm(hmn)300ug/3DI	(rat)11mg/m3

Toxicological Test Data: None known.

ACUTE EFFECTS - EYE CONTACT: Contact with eyes may cause irritation.

ACUTE EFFECTS - SKIN CONTACT: Irritating to skin. Prolonged and repeated contact may be harmful.

ACUTE EFFECTS - INHALATION: High vapor concentrations are irritating to the eyes, nose, throat and lungs. Vapors and/or aerosols which may be formed at elevated temperatures may be irritating.

ACUTE EFFECTS - INGESTION: Ingestion of small amounts is not expected to present a hazard. May cause nausea and vomiting.

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SECTION 11 - TOXICOLOGICAL INFORMATION

CHRONIC OVEREXPOSURE EFFECTS: *When heated to high temperatures (above 150 degrees C), this product may release formaldehyde vapors. Formaldehyde is irritating to the skin, eyes, nose, and throat, and has been listed as a carcinogen by IARC. Repeated or prolonged overexposure may cause serious respiratory and/or skin sensitization. Testing in animals has shown reproductive effects. *Repeated and prolonged inhalation of graphite or carbon dusts may cause pulmonary fibrosis, emphysema, and pneumoconiosis. The severity of these effects is greatly influenced by the presence of other harmful mineral dusts, most notably crystalline silica. *This product contains encapsulated mica and coal dust. Repeated and prolonged occupational overexposure to mica and/or coal dust may cause delayed lung injury which may result in pneumoconiosis and/or positive chest x-rays. Mica and coal dust contain crystalline silicon dioxide (quartz) which has been listed by IARC as a suspected human carcinogen via inhalation. No exposure to free respirable dust is anticipated, however, during normal application of this product. Refer to respiratory protection section for further requirements. *Repeated or prolonged overexposure to phenol via inhalation, ingestion, or skin absorption may cause damage to the liver, kidneys, pancreas, and spleen. Phenol is mutagenic "in-vitro." *This product contains encapsulated talc. Talc may be released by grinding or machining of material. It should be noted, that repeated and prolonged occupational overexposure to talc has been associated with pulmonary fibrosis and/or pneumoconiosis. These conditions may exist with or without a decrease in lung function.

SECTION 12 - ECOLOGICAL INFORMATION

ECOLOGICAL TEST DATA: Not Applicable.

SECTION 13 - DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: If material becomes contaminated, follow disposal instructions for contaminant. Incineration or fuels blending recommended if regulations permit.

SECTION 14 - TRANSPORT INFORMATION

INTERNATIONAL SHIPPING NAME: Not regulated
INTERNATIONAL ID NUMBER: N/A
IMDG CLASS (1ø,2ø): N/A IMDG PAGE NUMBER: N/A
IMDG EMS: N/A IATA CLASS (1ø,2ø): N/A
INTERNATIONAL SHIPPING INFORMATION: Not Applicable.

SECTION 15 - REGULATORY INFORMATION

CHiP SUPPLY LABEL RISK PHRASES: (R21/22) Harmful in contact with skin and if swallowed. (R36/38) Irritating to eyes and skin. (R68) Limited evidence of carcinogenic effects.

CHiP SUPPLY LABEL SAFETY PHRASES: (S28) After contact with skin, wash immediately with plenty of water. (S36/37) Wear suitable protective clothing and gloves. (S45) In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible) For industrial and professional use only.

CHiP SUPPLY LABEL SYMBOLS: Harmful, Xn

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SECTION 16 - OTHER INFORMATION
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PREVIOUS MSDS REVISION DATE: 12/08/02

REASON FOR REVISION: updated section(s): 2,3,4,5,7,9,11,15

VOLATILE ORGANIC COMPOUNDS (VOCS): < 20 grams/ltr (calculated)

LEGEND: N.A. - Not Applicable, N.E. - Not Established,
N.D. - Not Determined

ABBREVIATIONS: ACGIH = American Conference of Governmental Industrial Hygienists; UK = United Kingdom; REL = Recommended Exposure Limit; MAK = Maximale Arbetisplatzkonzentration (Maximum Concentration in the Workplace); 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.

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