

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

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : BUEHLER COOLMET
 IDENTIFICATION NUMBER: 10-3330-032, 10-3330-128, 10-3330-640
 PRODUCT USE/CLASS : Lubricant

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: 08/08/01

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

ITEM	CHEMICAL NAME	CAS NUMBER	WT/WT%
01	Triethanolamine Classification: No Information.	102-71-6	30.0-60.0
02	Borate Classification: No Information.	10043-35-3	10.0-30.0
03	Carboxylic acid Classification: No Information.	298-14-6	1.0-10.0

EXPOSURE LIMITS

ITEM	U/K		GERMANY		OTHER	SKIN
	8-HR REL	15-MIN STEL	8-HR MAK	15-MIN MAK	8-HR TWA	
01	5 mg/m3	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 - IDENTIFICATION OF HAZARDS

EMERGENCY OVERVIEW: (R36/38) Irritating to eyes and skin.

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

SECTION 4 - FIRST AID MEASURES

EYE CONTACT: Immediately flush eyes with plenty of water. Get medical attention if irritation develops or persists.

SKIN CONTACT: Wash with soap and water. Get medical attention if irritation develops or persists.

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: Swallowing less than an ounce will not cause significant harm. For larger amounts, do not induce vomiting, but give one or two glasses of water to drink and get medical attention.

NOTES TO PHYSICIAN: Treat symptomatically.

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SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT: none - does not flash (CLEVELAND OPEN CUP) LOWER EXPLOSIVE LIMIT: N.A.
UPPER EXPLOSIVE LIMIT: N.A.
AUTOIGNITION TEMPERATURE: No data

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

UNUSUAL FIRE AND EXPLOSION HAZARDS: none known.

SPECIAL FIREFIGHTING PROCEDURES: none known.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Reclaim clean material. Place contaminated material in covered waste container and dispose of in accordance with local and national regulations.

SECTION 7 - HANDLING AND STORAGE

HANDLING: Avoid prolonged or repeated contact with skin. Follow good general industrial safety practices during use and handling. FOR INDUSTRIAL USE ONLY.

STORAGE: Keep from freezing. KEEP OUT OF THE REACH OF CHILDREN. Use proper grounding procedures.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Not Applicable.

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

SKIN PROTECTION: Clean clothing to cover skin. Cloth or synthetic gloves. Butyl rubber gloves. Natural rubber gloves. Neoprene gloves. Nitrile gloves. PVA gloves. PVC gloves.

EYE PROTECTION: Safety glasses with side shields.

OTHER PROTECTIVE EQUIPMENT: Not Applicable.

HYGIENIC PRACTICES: DO NOT reuse empty containers.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

BOILING RANGE : N.A. VAPOR DENSITY : Is heavier than air
ODOR : Mild oily ODOR THRESHOLD : No data
APPEARANCE : Light yellow EVAPORATION RATE: Is slower than Butyl Acetate
SOLUBILITY IN H2O : Moderate
FREEZE POINT : No data SPECIFIC GRAVITY: 0.9835
VAPOR PRESSURE : No data pH @ 0.0 % : N/A
PHYSICAL STATE : Liquid VISCOSITY : Low
COEFFICIENT OF WATER/OIL DISTRIBUTION: No data
(See Section 16 for abbreviation legend)

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| SECTION 10 - STABILITY AND REACTIVITY |
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CONDITIONS TO AVOID: Not Applicable.

INCOMPATIBILITY: Strong bases or oxidants. Heat and flame.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon. Oxides of nitrogen, ammonia.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

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| SECTION 11 - TOXICOLOGICAL PROPERTIES |
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COMPONENT TOXICOLOGICAL INFORMATION:

----- CHEMICAL NAME -----	----- LD50 -----	----- LC50 -----
Triethanolamine	oral(rat)8g/kg	Not Applicable
Borate	Orat-rat=900mg/kg	No information

Toxicological Test Data: Not Applicable.

ACUTE EFFECTS - EYE CONTACT: Moderately irritating to the eyes.

ACUTE EFFECTS - SKIN CONTACT: Mild irritant. Prolonged contact may cause defatting and redness.

ACUTE EFFECTS - INHALATION: Vapors from heated material may cause respiratory tract irritation.

ACUTE EFFECTS - INGESTION: Irritating to mouth, throat and stomach, with nausea. Small amounts (a tablespoonful) swallowed during normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury. Ingestion of significant amounts may cause kidney damage.

CHRONIC OVEREXPOSURE EFFECTS: *Studies suggest that chronic overexposure and/or systemic toxicity effects are targeted at the liver and kidneys.

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| SECTION 12 - ECOLOGICAL INFORMATION |
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ECOLOGICAL TEST DATA: Not Applicable.

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| SECTION 13 - DISPOSAL CONSIDERATIONS |
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DISPOSAL METHOD: Material as sold may be disposed of in landfill. If material becomes contaminated, follow disposal instructions for contaminant.

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| SECTION 14 - TRANSPORTATION INFORMATION |
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INTERNATIONAL SHIPPING NAME: Not regulated for transport

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

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SECTION 15 - REGULATORY INFORMATION

CHiP SUPPLY LABEL RISK PHRASES: (R36/38) Irritating to eyes and skin.

CHiP SUPPLY LABEL SAFETY PHRASES: (S24/25) Avoid contact with skin and eyes.

CHiP SUPPLY LABEL SYMBOLS: Irritant, Xi

VOLATILE ORGANIC COMPOUNDS (VOCS): 0 grams/ltr

SECTION 16 - OTHER INFORMATION

PREVIOUS MSDS REVISION DATE: 12/06/01

REASON FOR REVISION: new formula

ADMINISTRATIVE REVISION DATE:

REASON FOR ADMINISTRATIVE REVISION:

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

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