

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 SILICONE MOLD RELEASE
 IDENTIFICATION NUMBER: 20-3046
 PRODUCT USE/CLASS : Release agent

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: 11/08/01

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

ITEM	CHEMICAL NAME	CAS NUMBER	WT/WT%
01	Dichloromethane Classification: Harmful Xn; Carc. Cat. 3; R40	75-09-2	60.0-100.0
02	1,1,1,2-tetrafluoroethane Classification: No information.	811-97-2	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	100 ppm	N.E.	500 ppm	200 ppm	100 ppm	NO
02	1000 ppm	N.E.	1000 ppm	N.E.	N.E.	NO

(See Section 16 for abbreviation legend)

SECTION 3 - IDENTIFICATION OF HAZARDS

EMERGENCY OVERVIEW: (R48/20) Harmful: danger of serious damage to health by prolonged exposure through inhalation. (R36) Irritating to eyes.

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

SECTION 4 - FIRST AID MEASURES

EYE CONTACT: Flush eye with water for 15 minutes. Get medical attention.

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

INHALATION: If symptoms occur, remove to fresh air. Medical personnel may administer oxygen if breathing is difficult. Seek medical attention if symptoms persist.

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. *In case of poisoning, do not give epinephrine. Treat ventricular arrhythmias with beta-blocking agents. Keep patient calm and quiet.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT: Does not flash
 LOWER EXPLOSIVE LIMIT: N.A.
 UPPER EXPLOSIVE LIMIT: N.A.

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| SECTION 5 - FIRE FIGHTING MEASURES |
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AUTOIGNITION TEMPERATURE: No data

EXTINGUISHING MEDIA: Dry chemical

UNUSUAL FIRE AND EXPLOSION HAZARDS: Aerosol: containers exposed to direct heat or fire may explode. Toxic fumes may be released.

SPECIAL FIREFIGHTING PROCEDURES: Treat as chemical fire. Contains chlorinated carbons.

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| SECTION 6 - ACCIDENTAL RELEASE MEASURES |
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STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Wipe up spill with towel or rag. Wash spill area with soap and water.

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| SECTION 7 - HANDLING AND STORAGE |
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HANDLING: Use only in a well ventilated area. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid contact with skin and eyes. Follow good general industrial safety practices during use and handling. FOR INDUSTRIAL USE ONLY.

STORAGE: Store full and empty containers away from heat, sparks, and flame. Do not store in direct sunlight. KEEP OUT OF THE REACH OF CHILDREN.

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| SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION |
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ENGINEERING CONTROLS: Local ventilation if effects occur or if recommended vapor limits are exceeded.

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

SKIN PROTECTION: Neoprene gloves.

EYE PROTECTION: Safety glasses or goggles.

OTHER PROTECTIVE EQUIPMENT: No information.

HYGIENIC PRACTICES: DO NOT smoke or eat during use.

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| SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES |
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BOILING RANGE	: 39 - 40 C	VAPOR DENSITY	: Is heavier than air
ODOR	: Strong solvent	ODOR THRESHOLD	: No data
APPEARANCE	: Clear	EVAPORATION RATE:	Is faster than Butyl Acetate
SOLUBILITY IN H2O	: Insoluble	SPECIFIC GRAVITY:	0.4679
FREEZE POINT	: No data	pH @ 0.0 %	: N/A
VAPOR PRESSURE	: 30 psig @ 21 C	VISCOSITY	: N/A
PHYSICAL STATE	: Aerosol		
COEFFICIENT OF WATER/OIL DISTRIBUTION: No data			
(See Section 16 for abbreviation legend)			

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SECTION 10 - STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Prolonged exposure to heat.

INCOMPATIBILITY: Strong Lewis or mineral acids.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon. Phosgene.

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
Dichloromethane	Oral/rat-1600mg/kg	rat-30m 88000mg/m3
1,1,1,2-tetrafluoroethane	No information	Inh-rat=1500g/m3/4

Toxicological Test Data: No information.

ACUTE EFFECTS - EYE CONTACT: Irritating, but will not permanently injure eye tissue.

ACUTE EFFECTS - SKIN CONTACT: May cause skin irritation.

ACUTE EFFECTS - INHALATION: Harmful if inhaled. Can cause severe central nervous system depression, including unconsciousness. High vapour concentrations are irritating to the eyes, nose, throat and lungs. *Extreme overexposure to 1,1,1,2-tetrafluoroethane may cause cardiac arrhythmia. Effects are worsened by activity following overexposure.

ACUTE EFFECTS - INGESTION: Moderately toxic. May cause nausea and vomiting.

CHRONIC OVEREXPOSURE EFFECTS: *Studies suggest that solvent chronic overexposure effects are targeted at the liver and central nervous system. Deliberate and repeated inhalation of concentrated solvent vapours may cause permanent neural injury. *In laboratory tests, animals exposed to high levels of solvent during pregnancy experienced foetal malformations and fetotoxicity. *Component(s) in this material are considered to have caused cancer in laboratory animal studies.

SECTION 12 - ECOLOGICAL INFORMATION

ECOLOGICAL TEST DATA: No information.

SECTION 13 - DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: In accordance with local and national regulations.

SECTION 14 - TRANSPORTATION INFORMATION

INTERNATIONAL SHIPPING NAME: Aerosols

INTERNATIONAL ID NUMBER: UN1950

IMDG CLASS (10,20): 2.2, none

PACKING GROUP: N/A

IMDG EMS: N/A

IATA CLASS (10,20): 2.2, NONE

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SECTION 15 - REGULATORY INFORMATION
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CHiP SUPPLY LABEL RISK PHRASES: (R48/20) Harmful: danger of serious damage to health by prolonged exposure through inhalation. (R36) Irritating to eyes.

CHiP SUPPLY LABEL SAFETY PHRASES: (S23) Do not breathe vapour or fumes. (S35) This material and its container must be disposed of in a safe way. (S51) Use only in well-ventilated areas.

CHiP SUPPLY LABEL SYMBOLS: Harmful, Xn

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SECTION 16 - OTHER INFORMATION
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PREVIOUS MSDS REVISION DATE: 01/08/01

REASON FOR REVISION: new format

ADMINISTRATIVE REVISION DATE:

REASON FOR ADMINISTRATIVE REVISION:

VOLATILE ORGANIC COMPOUNDS (VOCS): 0 grams/ltr

LEGEND: N.A. - No information, 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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