



MATERIAL SAFETY DATA SHEET

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: BUEHLER SILICONE MOLD RELEASE

IDENTIFICATION NUMBER: 20-3046

PRODUCT USE/CLASS: Mold release

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: 4/03/2012, 03 April 2012

SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

ITEM	CHEMICAL NAME		CAS NUMBER		WT/WT%	
01	Dichloromethane		75-09-2		60.0-100.0	
02	1,1,1,2-tetrafluoroethane		811-97-2		10.0-30.0	
ITEM	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL – CEILING	COMPANY TLV-TWA	SKIN
01	50 ppm	N.E.	50 ppm	200 ppm	50 ppm	NO
02	1000 ppm	N.E.	1000 ppm	N.E.	N.E.	NO

(SEE SECTION 16 FOR ABBREVIATION LEGEND)

SECTION 3 – HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Harmful if inhaled or swallowed. High vapor concentrations may cause drowsiness. Contents under pressure. Respiratory irritant. May cause skin and eye irritation.

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

ACUTE EFFECTS - SKIN CONTACT: Contact causes severe skin irritation and possible burns.

ACUTE EFFECTS – INHALATION: Harmful if inhaled. Liquid aspirated into lungs may cause serious injury or death. Can cause severe central nervous system depression, including unconsciousness. High vapor 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: * Preexisting pulmonary and dermatological disorders may be aggravated by exposure to hazardous components. *Studies suggest that solvent chronic overexposure effects are targeted at the liver and central nervous system. Deliberate and repeated inhalation of concentrated solvent vapors may cause permanent neural injury. Consumption of alcohol in conjunction with repeated solvent exposure may cause color vision defects. *Component(s) in this material are considered to have caused cancer in laboratory animal studies.

OTHER INFORMATION: Not Applicable.

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

SECTION 4 – FIRST AID MEASURES

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

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: 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: In case of poisoning, do not give epinephrin. Treat ventricular arrhythmias with beta-blocking agents. Keep patient calm.

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: CO₂, DRY CHEMICAL, FOAM

UNUSUAL FIRE AND EXPLOSION HAZARDS: Closed containers may rupture or explode (due to pressure build-up) when exposed to extreme heat. "Empty" containers may retain dangerous product residues or explosive vapors. DO NOT pressurize, cut, weld, braze, solder, drill or grind on or near empty containers. Store full and empty containers away from heat, sparks, flame, and other sources of ignition. Observe all labeled precautions. 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: Wipe up excess material. Dispose of damaged aerosol container in accordance with applicable federal, state and local regulations regarding "empty" chemical containers.

SECTION 7 – HANDLING AND STORAGE

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

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

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Local exhaust as needed to control vapor or dust levels to below lowest component TLV.

RESPIRATORY PROTECTION: If TLV/PEL is exceeded, if use is performed in a poorly-ventilated space, or if inhalation effects occur, use NIOSH-approved vapor cartridge respirator in accordance with applicable health and safety regulations and manufacturer's recommendations.

SKIN PROTECTION: Clean clothing to cover skin. Neoprene 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 smoke or eat during use. Follow all MSDS/label precautions even after container is emptied.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

BOILING RANGE:	103 - 104 F	VAPOR DENSITY:	Is heavier than air
ODOR:	Strong solvent	ODOR THRESHOLD:	Appr 10 ppm
APPEARANCE:	Clear	EVAPORATION RATE:	Is faster than Butyl Acetate
SOLUBILITY IN H₂O:	Insoluble		
FREEZE POINT:	No data	SPECIFIC GRAVITY:	1.1679
VAPOR PRESSURE:	30 psig @ 70 F	pH @ 0.0%:	N.A.
PHYSICAL STATE:	Gas	VISCOSITY:	N.A.
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.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon. Chloride compounds. 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

DichloromethaneOral/rat-1600mg/kg rat-30m 88000mg/m3

1,1,1,2-tetrafluoroethaneNo information Inh-rat=1500g/m3/4

SECTION 12 – ECOLOGICAL INFORMATION

ECOLOGICAL TEST DATA: Not Available

SECTION 13 – DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Follow disposal instructions for contaminant. Dispose of in accordance with federal, state and local regulations.

SECTION 14 – TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: Aerosols, non-flammable

DOT TECHNICAL NAME: N.A.

HAZARD SUBCLASS: N.A.

DOT HAZARD CLASS: 2.2

PACKAGING GROUP: III

DOT UN/NA CLASS: UN1950

RESP. GUIDE PAGE: 126

INTERNATIONAL SHIPPING NAME:

ICAO/IATA: Aerosols, non-flammable, containing substances in Division 6.1, Packing Group III

IMO/IMDG : Aerosols

INTERNATIONAL ID NUMBER: UN1950

IMDG CLASS (1°, 2°): 2, none

PACKAGING GROUP: III

IMDG EMS: 213

IATA CLASS (1°, 2°): 2.2, 6.1

ADR ITEM NO.: N.A.

ADR TREMCARD: N.A.

SUPPLEMENTAL INFORMATION: Not Applicable.

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 PRESSURE HAZARD

SARA SECTION 313: THIS PRODUCT CONTAINS THE FOLLOWING SUBSTANCES SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 AND 40 CFR PART 372:

CHEMICAL NAME -----CAS NUMBER --- WT/WT % IS LESS THAN

Dichloromethane75-09-2 60.0 – 100.0

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:

CHEMICAL NAME -----CAS NUMBER

Dichloromethane75-09-2

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

CHEMICAL NAME -----CAS NUMBER

Polydimethylsiloxane63148-62-9

PENNSYLVANIA RIGHT-TO-KNOW: THE FOLLOWING NON-HAZARDOUS INGREDIENTS ARE PRESENT IN THE PRODUCT AT GREATER THAN 3%:

CHEMICAL NAME -----CAS NUMBER

Polydimethylsiloxane63148-62-9

CALIFORNIA PROPOSTION 65: This product contains a chemical known to the State of California to cause cancer (Dichloromethane).

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

CANADIAN WHMIS CLASS: A, D2A

COMPONENT RCRA CLASSIFICATIONS: TOXIC

COMPONENT RCRA CODES: D003

CERCLA RQ VALUE (MINIMUM): 100

SECTION 16 – OTHER INFORMATION

HMIS RATINGS

HEALTH: 3*

FLAMMABILITY: 0

REACTIVITY: 0

PREVIOUS MSDS REVISION DATE: 3/23/2009, 23 March 2009

REASON FOR REVISION: Administrative change for new format. Periodic Review.

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

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