

M A T E R I A L 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 CASTOLITE HARDENER
 IDENTIFICATION NUMBER: 20-8122-001, 20-8122-002, 20-8122-009
 PRODUCT USE/CLASS : acrylic compound activator

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: 08/10/02

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

ITEM	CHEMICAL NAME	CAS NUMBER	WT/WT%
01	Methyl ethyl ketone Classification: F; Xi; R11-36-66-67	78-93-3	1.0-5.0
02	Dimethyl phthalate Classification: No information; N.E.	131-11-3	30.0-60.0
03	Hydrogen peroxide Classification: O, C; R8-34	7722-84-1	1.0-5.0
04	Methyl ethyl ketone peroxide Classification: No information; N.E.	1338-23-4	30.0-60.0

EXPOSURE LIMITS

ITEM	U/K		GERMANY		OTHER	SKIN
	8-HR REL	15-MIN STEL	8-HR MAK	15-MIN MAK	8-HR TWA	
01	200 ppm	300 ppm	200 ppm	N/E	200ppm ACGIH	NO
02	5mg/m	N.E.	5mg/m ³	N/E	N.E.	NO
03	1ppm	N.E.	1ppm	N/E	1ppm ACGIH	NO
04	N.E.	0.2 ppm*	0.7 ppm (C)	N/E	0.2ppm (C)	NO

(See Section 16 for abbreviation legend), * - Ceiling Value

SECTION 3 - IDENTIFICATION OF HAZARDS

EMERGENCY OVERVIEW: (R8) Contact with combustible material may cause fire. (R36/38) Irritating to eyes and skin. (R66) Repeated exposure may cause skin dryness or cracking. (R67) Vapors may cause drowsiness and dizziness.

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

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SECTION 4 - FIRST AID MEASURES

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: Treat symptomatically.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT: 82 C LOWER EXPLOSIVE LIMIT: 1.8 %
(SETAFLASH CLOSED CUP) UPPER EXPLOSIVE LIMIT: 11.5 %
AUTOIGNITION TEMPERATURE: No data
EXTINGUISHING MEDIA:ALCOHOL FOAM,CO2,DRY CHEMICAL,FOAM,WATER FOG

UNUSUAL FIRE AND EXPLOSION HAZARDS: Containers exposed to fire may explode. Can be self-sustaining.

SPECIAL FIREFIGHTING PROCEDURES: Fight fire with large amounts of water from a safe distance. Do not attempt clean up until material has cooled completely.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Reclaim clean material. Remove sources of ignition. Absorb spilled material with inert substance such as clay. Place contaminated material in covered waste container and dispose of in accordance with local and national regulations.

SECTION 7 - HANDLING AND STORAGE

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 eyes, skin, and clothing. FOR INDUSTRIAL USE ONLY.

STORAGE: Store in a cool place in original container away from heat, flame, and direct sunlight. Keep container closed when not in use.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: General ventilation usually adequate. Supplemental ventilation equipment should be approved for use with flammable vapors.

RESPIRATORY PROTECTION: If exposure levels are unknown, if levels exceed recommended safe exposure limit, or if effects occur, use approved respirator in accordance with regulations and manufacturer's recommendations.

SKIN PROTECTION: Clean clothing to cover skin. Butyl rubber gloves. Teflon gloves. Supported PVA gloves.

EYE PROTECTION: Chemical splash goggles.

OTHER PROTECTIVE EQUIPMENT: Eye wash.

HYGIENIC PRACTICES: Follow good general industrial safety practices during use.

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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

BOILING RANGE : 67 - 283 C VAPOR DENSITY : Is heavier than air
ODOR : Mild acrid ODOR THRESHOLD : no data
APPEARANCE : Clear EVAPORATION RATE: Is slower than Butyl
SOLUBILITY IN H2O : Negligible Acetate
FREEZE POINT : no data SPECIFIC GRAVITY: 1.1010
VAPOR PRESSURE : no data - low pH @ 0.0 % : not applicable
PHYSICAL STATE : liquid VISCOSITY : low
COEFFICIENT OF WATER/OIL DISTRIBUTION: no data
SELF-ACCELERATING DECOMPOSITION TEMPERATURE (SADT): 1 gal: 75 deg C
(See Section 16 for abbreviation legend)

SECTION 10 - STABILITY AND REACTIVITY

CONDITIONS TO AVOID: None known.

INCOMPATIBILITY: Strong bases. Strong Lewis or mineral acids. Metal salts. Accelerants/Catalysts.

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

HAZARDOUS POLYMERIZATION: Should not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

SECTION 11 - TOXICOLOGICAL PROPERTIES

COMPONENT TOXICOLOGICAL INFORMATION:

Table with 4 columns: CHEMICAL NAME, LD50, LC50, and toxicity details. Rows include Methyl ethyl ketone, Dimethyl phthalate, Hydrogen peroxide, and Methyl ethyl ketone peroxide.

Toxicological Test Data: Not Applicable.

ACUTE EFFECTS - EYE CONTACT: Contact with eyes may cause injury if not removed promptly. Severe irritant to eyes.

ACUTE EFFECTS - SKIN CONTACT: Irritating to skin. May cause defatting and redness.

ACUTE EFFECTS - INHALATION: Harmful if inhaled. Liquid aspirated into lungs may cause chemical pneumonitis. May cause headaches and dizziness. Causes respiratory tract irritation.

ACUTE EFFECTS - INGESTION: This material may be harmful or fatal if swallowed.

CHRONIC OVEREXPOSURE EFFECTS: *Embryotoxic/fetotoxic effects have been observed in laboratory rats exposed to methyl ethyl ketone by inhalation at levels greater than 1000 ppm for most of the gestation period.

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SECTION 12 - ECOLOGICAL INFORMATION

ECOLOGICAL TEST DATA: No data

SECTION 13 - DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Incineration preferred. This material and/or its container must be disposed of as hazardous waste. Cured product (resin and hardener reacted per directions) is inert and non-hazardous and may be landfilled if local regulations permit.

SECTION 14 - TRANSPORTATION INFORMATION

INTERNATIONAL SHIPPING NAME: Organic peroxide type E, liquid (Methyl ethyl ketone peroxide, 37-40%)
INTERNATIONAL ID NUMBER: UN3107
IMDG CLASS (10,20): 5.2, none PACKING GROUP: II
IMDG EMS: IATA CLASS (10,20): 5.2, none
INTERNATIONAL SHIPPING INFORMATION: TEC-88

SECTION 15 - REGULATORY INFORMATION

CHIP SUPPLY LABEL RISK PHRASES: (R8) Contact with combustible material may cause fire. (R36/38) Irritating to eyes, respiratory system, and skin. (R66) Repeated exposure may cause skin dryness or cracking. (R67) Vapours may cause drowsiness and dizziness.

CHIP SUPPLY LABEL SAFETY PHRASES: (S9) Keep containers in a well ventilated place. (S16) Keep away from sources of ignition - No smoking. (S28) After contact with skin, wash immediately with plenty of water. For professional use ONLY.

CHIP SUPPLY LABEL SYMBOLS: Oxidizing, O Irritant, Xi

SECTION 16 - OTHER INFORMATION

PREVIOUS MSDS REVISION DATE: 04/04/01
REASON FOR REVISION: Update Section(s): 1, 3, 14, 15

VOLATILE ORGANIC COMPOUNDS (VOCS): 22 grams/ltr

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

ABBREVIATIONS: ACGIH = American Conference of Governmental Industrial Hygienists; OSHA = US Occupational Health and Safety Administration; UK = United Kingdom; TLV-TWA = Threshold Limit Value-Time Weighted Average (8 hrs); STEL = Short-Term Exposure Limit (15 min); C = Ceiling Value; PEL = Permissible Exposure Limit

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