

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 PLASTIC LIQUID  
 IDENTIFICATION NUMBER: 20-3554, 20-3550  
 PRODUCT USE/CLASS : Acrylic

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: 04/04/01

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

ITEM	CHEMICAL NAME	CAS NUMBER	WT/WT%
01	Ethyl-2-cyano-3,3-diphenyl acrylate Classification: No information; N.E.	5232-99-5	1.0-5.0
02	Methyl methacrylate Classification: F, Xi; R11-36/37/38-43	80-62-6	60.0-100.0

EXPOSURE LIMITS

ITEM	U/K		GERMANY		OTHER	SKIN
	8-HR REL	15-MIN STEL	8-HR MAK	15-MIN MAK	8-HR TWA	
01	N.E.	N.E.	N.E.	N.E.	10 mg/m3	NO
02	50 ppm	100 ppm	50 ppm	N.E.	50ppm ACGIH	NO

(See Section 16 for abbreviation legend)

SECTION 3 - IDENTIFICATION OF HAZARDS

EMERGENCY OVERVIEW: (R11) Highly flammable. (R43) May cause sensitisation by skin contact. (R36/37/38) Irritating to eyes, respiratory system, and skin.

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.

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: Not Applicable.

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SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT: 10 C LOWER EXPLOSIVE LIMIT: 2.1 %  
(TAGLIABUE CLOSED CUP) UPPER EXPLOSIVE LIMIT: 12.5 %  
AUTOIGNITION TEMPERATURE: No data

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

UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors are heavier than air, and may travel along the ground to be reignited at locations distant from the source; flashback of flame may occur. Containers exposed to fire may explode.

SPECIAL FIREFIGHTING PROCEDURES: Use full protective clothing. Water spray may be used to cool exposed containers but is not recommended for fire.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Reclaim clean material. Remove sources of ignition. 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 SDS/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: Keep away from heat, sparks and flame. Keep container closed when not in use. Store in a cool place out of direct sunlight.

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. Rubber or synthetic 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  
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BOILING RANGE : 101 - 101 C VAPOR DENSITY : Is heavier than air  
 ODOR : Plastic/acrylic ODOR THRESHOLD : No data  
 APPEARANCE : Clear EVAPORATION RATE: Is slower than Butyl  
 SOLUBILITY IN H2O : Negligible Acetate  
 FREEZE POINT : No data SPECIFIC GRAVITY: 0.9431  
 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: Prolonged exposure to heat.

INCOMPATIBILITY: Strong bases or oxidants.

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

HAZARDOUS POLYMERIZATION: Should 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 -----
Ethyl-2-cyano-3,3-diphenyl acrylate	No information	No information
Methyl methacrylate	Oral-rat=8.4 g/kg	No data

Toxicological Test Data: No data

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

ACUTE EFFECTS - SKIN CONTACT: Contact causes skin irritation.

ACUTE EFFECTS - INHALATION: May cause headaches and dizziness. High vapor concentrations are irritating to the eyes, nose, throat and lungs.

ACUTE EFFECTS - INGESTION: Irritating to mouth, throat and stomach, with nausea.

CHRONIC OVEREXPOSURE EFFECTS: Not Applicable.

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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: Fuels blending or Incineration preferred. Do not landfill free liquid. This material and/or its container must be disposed of as hazardous waste. If regulations permit, residual resin and activator may be mixed in accordance with product directions and allowed to cure. Cured product is inert and non-hazardous and may be landfilled if regulations permit.

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SECTION 14 - TRANSPORTATION INFORMATION

INTERNATIONAL SHIPPING NAME: Resin solution
INTERNATIONAL ID NUMBER: UN1866
IMDG CLASS (1,2): 3.2, none PACKING GROUP: II
IMDG EMS: 3L IATA CLASS (1,2): 3, none

INTERNATIONAL SHIPPING INFORMATION: Not Applicable.

SECTION 15 - REGULATORY INFORMATION

CHIP SUPPLY LABEL RISK PHRASES: (R11) Highly flammable. (R36/37/38)
Irritating to eyes, respiratory system, and skin. (R43) May cause
sensitisation by skin contact.

CHIP SUPPLY LABEL SAFETY PHRASES: (S9) Keep container in a well-ventilated
place. (S16) Keep away from sources of ignition - No smoking. (S29) Do
not empty into drains. (S53) Avoid exposure - Obtain special instructions
before use. For industrial and professional use only.

CHIP SUPPLY LABEL SYMBOLS: Highly Flammable, F Irritant, Xi

SECTION 16 - OTHER INFORMATION

HMS RATINGS - HEALTH: 2 FLAMMABILITY: 3 REACTIVITY: 1

PREVIOUS MSDS REVISION DATE: none
REASON FOR REVISION: new format

Administrative Revision Date: n/a
Reason for Administrative Revision: n/a

VOLATILE ORGANIC COMPOUNDS (VOCS): >700 grams/ltr (calculated - uncured)

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

ABBREVIATIONS: ACGIH = American Conference of Governmental Industrial
Hygienists; MAK = Maximale Arbetisplatzkonzentration (Maximum Concentration
In the Workplace); 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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