

Safety data sheet

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 PRODUCT IDENTIFIER

Product name

MEKOL B10

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Relevant identified uses

Hardener for adhesives for industrial and professional use.

Uses advised against

Not suitable for private use.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Supplier

MITOL, tovarna lepil, d.o.o., Sežana
Partizanska c. 78
6210 Sežana, Slovenia
+386 5 73 12 300 (8:00-16:00)
lilijana.kocjan@mitol.si

1.4 EMERGENCY TELEPHONE NUMBER

Emergency

112

Supplier

+386 5 73 12 300 (8:00-16:00)



<https://my.chemius.net/p/AFD5n0/en/pd/en>

SECTION 2: HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Classification according to Regulation (EC) No 1272/2008 (CLP)

Skin Sens. 1; H317 May cause an allergic skin reaction.
Acute Tox. 4; H332 Harmful if inhaled.
STOT SE 3; H335 May cause respiratory irritation.
Aquatic Chronic 3; H412 Harmful to aquatic life with long lasting effects.

2.2 LABEL ELEMENTS

Labelling according to Regulation (EC) No 1272/2008 [CLP]



Signal word: WARNING

H317 May cause an allergic skin reaction.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects.
P273 Avoid release to the environment.
P280 Wear protective gloves.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER/doctor if you feel unwell.

Contains:

hydrophylic aliphatic polyisocyanate

2.3 OTHER HAZARDS

PBT/vPvB

No information.

Endocrine disrupting properties

No information.

Additional information

No information.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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3.1 SUBSTANCES

For mixtures see 3.2.

3.2 MIXTURES

Name	CAS EC Index Reach	%	Classification according to Regulation (EC) No 1272/2008 (CLP)	Specific Concentration Limits	Notes for substances
hydrophylic aliphatic polyisocyanate	125252-47-3 - -	ca.100	Skin Sens. 1; H317 Acute Tox. 4; H332 STOT SE 3; H335 Aquatic Chronic 3; H412	/	/
hexamethylene- di-isocyanate	822-06-0 212-485-8 615-011-00-1 01-2119457571- 37	<0,1	Acute Tox. 4; H302 Skin Irrit. 2; H315 Skin Sens. 1; H317 Eye Irrit. 2; H319 Acute Tox. 1; H330 Resp. Sens. 1; H334 STOT SE 3; H335	Skin Sens. 1; H317; C ≥ 0.5% Resp. Sens. 1; H334; C ≥ 0.5%	/

SECTION 4: FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

General notes

Never give anything by mouth to an unconscious person. Place patient in recovery position and ensure airway patency.

Following inhalation

Remove patient to fresh air - move out of dangerous area. If symptoms occur, seek medical advice.

Following skin contact

Immediately remove contaminated clothing. Wash affected skin areas immediately with plenty of water and soap. If symptoms occur, seek medical attention.

Following eye contact

Immediately flush eyes with running water, keeping eyelids apart. If irritation persists, seek professional medical attention.

Following ingestion

Do not induce vomiting! Rinse mouth thoroughly with water. Consult a physician. Show the physician the safety data sheet or label.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Following inhalation

Excessive exposure to spray mist, fog, or vapours may cause respiratory irritation. Coughing, sneezing, nasal discharge, labored breathing. Can cause sensitization. Asthmatic problems. Causes cough and problems with breathing. Harmful.

Following skin contact

Causes irritation of mucous membrane. May cause sensitisation by skin contact (symptoms: itching, redness, rashes).

Following eye contact

Contact with eyes can cause irritation (redness, tearing, pain).

Following ingestion

Irritates mucous membranes in the mouth, throat, esophagus and in gastrointestinal area.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

No information.

SECTION 5: FIREFIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

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Suitable extinguishing media

Carbon dioxide (CO₂).
Foam.
Fire extinguishing powder. Fight larger fires with water spray.

Unsuitable extinguishing media

Full water jet.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Hazardous combustion products

In the event of fire the following can be generated: carbon monoxide (CO), carbon dioxide (CO₂). In the event of fire the following is released: nitrogen oxides (NO_x).
Vapours of Isocyanates.
Hydrogen cyanide (HCN).

5.3 ADVICE FOR FIREFIGHTERS

Protective actions

In case of fire or heating do not breathe fumes/vapours.

Special protective equipment for fire-fighters

Firefighters should wear appropriate protective clothing for firefighters (including helmets, protective boots and gloves) (EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (EN 137).

Additional information

Contaminated firefighting water must be disposed of in accordance with the regulations; do not allow to reach the sewage system. Contaminated firefighting water and fire residues must be disposed of in accordance with the local regulations.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

For non-emergency personnel

Protective equipment

Use personal protective equipment (Section 8).

Precautionary measures

Ensure adequate ventilation.

Emergency procedures

Prevent access to unprotected personnel. Prevent access to unauthorised personnel.

For emergency responders

No information.

6.2 ENVIRONMENTAL PRECAUTIONS

Do not allow product to reach water/drains/sewage systems or permeable soil. If accidental large entry into water or ground occurs, inform responsible authorities.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

For containment

No information.

For cleaning up

Absorb product (with inert material), collect it in special container and dispose it to a licensed hazardous-waste disposal contractor. After approx. 1 hour collect the covering layer into waste container. Do not close the container (CO₂ is being released). Ensure ventilation of the containers in which waste is stored as CO₂ can be formed.

Other information

No information.

6.4 REFERENCE TO OTHER SECTIONS

See also sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Protective measures

Measures to prevent fire

Ensure adequate ventilation.

Measures to prevent aerosol and dust generation

Use general or local exhaust ventilation to prevent inhaling vapours and aerosols.

Measures to protect the environment

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No information.

Other measures

No information.

Advice on general occupational hygiene

Use good personal hygiene practices – wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Avoid contact with skin and eyes. Do not breathe vapours/mist. Keep working clothes separate from ordinary clothes.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Technical measures and storage conditions

Keep in cool and well ventilated area. Keep away from food, drink and animal feeding stuffs. Keep in a dry place. Keep away from acids and bases. Do not expose to temperatures exceeding 50°C.

Packaging materials

No information.

Requirements for storage rooms and vessels

No information.

Storage class

No information.

Further information on storage conditions

No information.

7.3 SPECIFIC END USE(S)

Recommendations

No information.

Industrial sector specific solutions

No information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Occupational Exposure limit values

Name	mg/m ³	ml/m ³	Short-term value mg/m ³	Short-term value ml/m ³	Remark	Biological Tolerance Values
Isocyanates, all (as –NCO) Except methyl isocyanate	0.02	/	0.07	/	Sen	1 µmol isocyanate-derived diamine/mol creatinine in urine - At the end of the period of exposure

Information on monitoring procedures

BS EN 14042:2003 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. BS EN 689:2018 Workplace exposure. Measurement of exposure by inhalation to chemical agents. Strategy for testing compliance with occupational exposure limit values. BS EN 482:2021 Workplace exposure. Procedures for the determination of the concentration of chemical agents. Basic performance requirements.

DNEL/DMEL values

For product

No information.

For components

No information.

PNEC values

For product

No information.

For components

No information.

8.2 EXPOSURE CONTROLS

Appropriate engineering control

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Substance/mixture related measures to prevent exposure during identified uses

Use good personal hygiene practices – wash hands at breaks and when done working with material.

Structural measures to prevent exposure

No information.

Organisational measures to prevent exposure

No information.

Technical measures to prevent exposure

Provide good ventilation and local exhaust in areas with increased concentration.

Personal protective equipment

Eye and face protection

Safety glasses with side protection (EN 166).

Hand protection

Protective gloves (EN 374).

Appropriate materials

Material	Thickness	Penetration Time	Remark
Butyl rubber	0.5 mm	480 min	EN 374 – 3
Nitrile	0.4 mm	480 min	EN 374 – 3

Skin protection

Cotton protective clothing and shoes that cover the entire foot (EN ISO 20345).

Respiratory protection

Wear suitable protective breathing mask (BS EN 136) with filter A2-P2 (BS EN 14387).

Thermal hazards

No information.

Environmental exposure controls

Substance/mixture related measures to prevent exposure

No information.

Instruction measures to prevent exposure

No information.

Organisational measures to prevent exposure

No information.

Technical measures to prevent exposure

No information.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Physical state

liquid

Colour

slight yellow tint

Odour

no odour

Important health, safety and environmental information

Odour threshold	No information.
Melting point/Freezing point	-37 °C
Boiling point or initial boiling point and boiling range	No information.
Flammability	ca. 445 °C (DIN 51794)
Lower and upper explosion limit	No information.
Flash point	ca. 218 °C (DIN EN 22719)
Auto-ignition temperature	No information.
Decomposition temperature	ca. 290 °C
pH	No information.

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Viscosity	Dynamic: ca. 1250 mPas at 23 °C (DIN EN ISO 3219/A.3)
Solubility	Water: Insoluble
Partition coefficient	No information.
Vapour pressure	ca. 42 hPa at 20 °C (EG A4)
Density and/or relative density	Density: ca. 1.15 g/cm ³ at 20 °C (DIN 51757)
Relative vapour density	No information.
Particle characteristics	No information.

9.2 OTHER INFORMATION

Explosive properties	No information.
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SECTION 10: STABILITY AND REACTIVITY

10.1 REACTIVITY

No information.

10.2 CHEMICAL STABILITY

Product is stable under normal conditions of use, recommended handling and storage conditions.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

Product reacts slowly with water, releasing CO₂, which can cause overpressure in closed containers. Danger of explosion.. It reacts with water, alkalis, amines, alcohols. Due to the exothermic nature of the reaction, warming occurs.

10.4 CONDITIONS TO AVOID

No special precautions required. Consider the directions for use and storage.

10.5 INCOMPATIBLE MATERIALS

Amines.
Alcohols.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Under normal use conditions no hazardous decomposition products are expected. In case of fire/explosion vapours/gases that pose a health hazard are released.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON HAZARD CLASSES AS DEFINED IN REGULATION (EC) NO 1272/2008

(a) Acute toxicity

For product

Exposure route	Type	Species	Time	value	Method	Remark
inhalation (dusts/mists)	ATE	/	/	1.5 mg/l	/	/

For components

Name	Exposure route	Type	Species	Time	value	Method	Remark
hydrophylic aliphatic polyisocyanate	oral	LD ₅₀	rat	/	> 2000 mg/kg	/	/
hydrophylic aliphatic polyisocyanate	dermal	LD ₅₀	rat	/	> 2000 mg/kg	OECD 402	/

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Name	Exposure route	Type	Species	Time	value	Method	Remark
hydrophylic aliphatic polyisocyanate	dermal	LD ₅₀	rabbit	/	> 2000 mg/kg /		/
hydrophylic aliphatic polyisocyanate	inhalation	LC ₅₀	rat	4 h	0.39 mg/l	OECD 403	/

Additional information

Harmful if inhaled.

(b) Skin corrosion/irritation

For components

Name	Species	Time	result	Method	Remark
hydrophylic aliphatic polyisocyanate	/	/	Mild irritating.	OECD 404	/

(c) Serious eye damage/irritation

For components

Name	Exposure route	Species	Time	result	Method	Remark
hydrophylic aliphatic polyisocyanate	/	/	/	Mild irritating.	OECD 405, GLP	/

(d) Respiratory or skin sensitisation

For components

Name	Exposure route	Species	Time	result	Method	Remark
hydrophylic aliphatic polyisocyanate	dermal	guinea pig	/	Sensitizing.	OECD 406	/
hydrophylic aliphatic polyisocyanate	inhalation	/	/	Non sensitising.	/	/

(e) (Germ cell) mutagenicity

For components

Name	Type	Species	Time	result	Method	Remark
hydrophylic aliphatic polyisocyanate	in-vitro mutagenicity	Bacteria	/	Negative.	OECD 471 (EU / B. 12/13)	/

(f) Carcinogenicity

No information.

(g) Reproductive toxicity

No information.

Summary of evaluation of the CMR properties

No information.

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(h) STOT-single exposure

For components

Name	ExposureType route	Species	Time	Exposure organ	value	result	Method	Remark
hydroph ylic aliphatic polyisoc yanate	inhalation -	/	/	/	Respirato ry tract	inhalation / of vapors may cause irritation of the respirator y tract	/	/

(i) STOT-repeated exposure

No information.

(j) Aspiration hazard

No information.

Symptoms related to the physical, chemical and toxicological characteristics

No information.

Interactive effects

No information.

11.2 INFORMATION ON OTHER HAZARDS

Endocrine disrupting properties

No information.

Other information

No information.

SECTION 12: ECOLOGICAL INFORMATION

12.1 TOXICITY

Acute (short-term) toxicity

For components

Name	Type	value	Exposure time	Species	organism	Method	Remark
hydrophylic aliphatic polyisocyan ate	LC ₅₀	17.8 mg/L	96 h	fish	<i>Danio rerio</i>	/	/
hydrophylic aliphatic polyisocyan ate	EC ₅₀	58 mg/L	48 h	crustacea	<i>Daphnia magna</i>	OECD 202	/
hydrophylic aliphatic polyisocyan ate	ErC ₅₀	> 100 mg/L	72 h	algae	<i>Scenedesmu s subspicatus</i>	OECD 201	/
hydrophylic aliphatic polyisocyan ate	EC ₅₀	> 10000 mg/L	/	bacteria	Activated sludge	OECD 209	/

Chronic (long-term) toxicity

No information.

12.2 PERSISTENCE AND DEGRADABILITY

Abiotic degradation, physical- and photo-chemical elimination

No information.

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Biodegradation

For components

Name	Type	Rate	Time	Evaluation	Method	Remark
hydrophylic aliphatic polyisocyanate	aerobic	2 %	28 days	/	OECD 301 F	/

12.3 BIOACCUMULATIVE POTENTIAL

Partition coefficient

No information.

Bioconcentration factor (BCF)

No information.

12.4 MOBILITY IN SOIL

Known or predicted distribution to environmental compartments

No information.

Surface tension

No information.

Adsorption/Desorption

No information.

12.5 RESULTS OF PBT AND VPVB ASSESSMENT

No evaluation.

12.6 ENDOCRINE DISRUPTING PROPERTIES

No information.

12.7 OTHER ADVERSE EFFECTS

No information.

12.8 ADDITIONAL INFORMATION

For product

Do not allow to reach ground water, water courses or sewage system. Harmful to aquatic organisms. May cause long term adverse effects in the aquatic environment. Isocyanates react with water to form an insoluble polyurea. This reaction is accelerated by surfactants (e.g. detergents) or by watersoluble solvents. Water hazard class 1 (self-assessment): slightly hazardous for water.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Product / Packaging disposal

Waste chemical

Disposal must be made according to official regulations: deliver it to authorised collector/remover/transformer of hazardous waste. Do not allow product to reach drains/sewage systems.

Waste codes / waste designations according to LoW

No information.

Packaging

Deliver completely emptied containers to approved waste disposal authorities. After removing the remains of the product, glued to the walls of the containers, it is necessary to remove the product marks and hazards. Cleaned uncontaminated packaging may be taken for recycling.

Waste codes / waste designations according to LoW

No information.

Waste treatment-relevant information

No information.

Sewage disposal-relevant information

No information.

Other disposal recommendations

No information.

SECTION 14: TRANSPORT INFORMATION



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ADR/RID	IMDG	IATA	ADN
14.1 UN number or ID number			
Not dangerous according to transport regulations.	Not dangerous according to transport regulations.	Not dangerous according to transport regulations.	Not dangerous according to transport regulations.
14.2 UN proper shipping name			
Not given/not applicable	Not given/not applicable	Not given/not applicable	Not given/not applicable
14.3 Transport hazard class(es)			
Not given/not applicable	Not given/not applicable	Not given/not applicable	Not given/not applicable
14.4 Packing group			
Not given/not applicable	Not given/not applicable	Not given/not applicable	Not given/not applicable
14.5 Environmental hazards			
NO	NO	NO	NO
14.6 Special precautions for user			
Limited quantities Not given/not applicable	Limited quantities Not given/not applicable		Limited quantities Not given/not applicable
14.7 Maritime transport in bulk according to IMO instruments			
	Not given/not applicable		

SECTION 15: REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (including last amendment Commission Regulation (EU) 2020/878)

- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

Information according 2004/42/EC about limitation of emissions of volatile organic compounds (VOC-guideline)

not applicable

Ingredients according to Regulation (EC) No 648/2004 on detergents

No information.

Special instructions

No information.

15.2 CHEMICAL SAFETY ASSESSMENT

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION

Indication of changes

2.2 Label elements 3.1 Substances 3.2 Mixtures 6.3 Methods and material for containment and cleaning up 9.1 Information on basic physical and chemical properties 9.2 Other information 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Key literature references and sources for data

No information.

Abbreviations and acronyms

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ATE - Acute Toxicity Estimate
ADR - Agreement concerning the International Carriage of Dangerous Goods by Road
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CEN - European Committee for Standardisation
C&L - Classification and Labelling
CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
CAS# - Chemical Abstracts Service number
CMR - Carcinogen, Mutagen, or Reproductive Toxicant
CSA - Chemical Safety Assessment
CSR - Chemical Safety Report
DMEL - Derived Minimal Effect Level
DNEL - Derived No Effect Level
DPD - Dangerous Preparations Directive 1999/45/EC
DSD - Dangerous Substances Directive 67/548/EEC
DU - Downstream User
EC - European Community
ECHA - European Chemicals Agency
EC-Number - EINECS and ELINCS Number (see also EINECS and ELINCS)
EEA - European Economic Area (EU + Iceland, Liechtenstein and Norway)
EEC - European Economic Community
EINECS - European Inventory of Existing Commercial Substances
ELINCS - European List of notified Chemical Substances
EN - European Standard
EQS - Environmental Quality Standard
EU - European Union
Euphrac - European Phrase Catalogue
EWC - European Waste Catalogue (replaced by LoW – see below)
GES - Generic Exposure Scenario
GHS - Globally Harmonized System
IATA - International Air Transport Association
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG - International Maritime Dangerous Goods
IMSBC - International Maritime Solid Bulk Cargoes
IT - Information Technology
IUCLID - International Uniform Chemical Information Database
IUPAC - International Union for Pure Applied Chemistry
JRC - Joint Research Centre
Kow - octanol-water partition coefficient
LC50 - Lethal Concentration to 50 % of a test population
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
LE - Legal Entity
LoW - List of Wastes (see <http://ec.europa.eu/environment/waste/framework/list.htm>)
LR - Lead Registrant
M/I - Manufacturer / Importer
MS - Member States
MSDS - Material Safety Data Sheet
OC - Operational Conditions
OECD - Organization for Economic Co-operation and Development
OEL - Occupational Exposure Limit
OJ - Official Journal
OR - Only Representative
OSHA - European Agency for Safety and Health at work
PBT - Persistent, Bioaccumulative and Toxic substance
PEC - Predicted Effect Concentration
PNEC(s) - Predicted No Effect Concentration(s)
PPE - Personal Protection Equipment
(Q)SAR - Qualitative Structure Activity Relationship
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
RIP - REACH Implementation Project
RMM - Risk Management Measure
SCBA - Self-Contained Breathing Apparatus
SDS - Safety data sheet
SIEF - Substance Information Exchange Forum
SME - Small and Medium sized Enterprises
STOT - Specific Target Organ Toxicity
(STOT) RE - Repeated Exposure
(STOT) SE - Single Exposure
SVHC - Substances of Very High Concern
UN - United Nations
vPvB - Very Persistent and Very Bioaccumulative

List of relevant H phrases



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H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects.