Part A LiqRep Plastic - Isocyanate

Safety Data Sheet

according to Regulation (EU) 2020/878

Date of issue: 12.07.2024 Revision date: 20.08.2026 Version/Replaced version: 3.0/2.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture

Product name : Part A LiqRep Plastic - Isocyanate

Product code : B53.900

UFI : NCG2-C0K5-U00K-2XTH

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use

Use of the substance/mixture : Two-component glue: Isocyanate

1.2.2. Uses advised against

Restrictions on use : Consumer use, In household use

1.3. Details of the supplier of the safety data sheet

Manufacturer
ElringKlinger AG
Max-Eyth-Straße 2
72581 Dettingen/Erms - Germany
T +49 (0)7123 724 799
det.iam.sdb@elringklinger.com

Supplier

Safety Data Sheet: DLAC Dienstleistungsagentur Chemie GmbH, E-mail: sds@dlac-gmbh.de

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number
Germany	Giftinformationszentrum (GIZ-Nord) Universitätsmedizin Göttingen - Georg-August-Universität	Robert-Koch Straße 40 37075 Göttingen	+49 551 19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute toxicity (inhal.), Category 4	H332
Skin sensitisation, Category 1	H317
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	H335

Full text of H-phrases: see section 16

Adverse physicochemical, human health and environmental effects

May cause an allergic skin reaction. Harmful if inhaled. May cause respiratory irritation.

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) : Warning

Hazardous ingredients : Hexamethylene-di-isocyanate, homopolymer

Hazard statements (CLP) : H317 - May cause an allergic skin reaction.
H332 - Harmful if inhaled.
H335 - May cause respiratory irritation.

Precautionary statements (CLP) : P261 - Avoid breathing mist/vapours/spray.
P280 - Wear protective gloves/protective clothing/eye protection.
P312 - Call a POISON CENTRE or doctor if you feel unwell.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

EUH-statements : EUH204 - Contains isocyanates. May produce an allergic reaction.

2.3. Other hazards

People who have chronic respiratory disorders should not work with isocyanate-based products.

The mixture does not contain substance(s) classified as PBT or vPvB in concentrations above 0.1 %. The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0.1 %.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No 1272/2008 [CLP]
Hexamethylene-di-isocyanate, homopolymer	(CAS No) 28182-81-2 (EC No) 931-274-8 (REACH No) 01-2119485796-17-xxxx	< 90	Acute Tox. 4 (Inhalation), H332 Skin Sens. 1, H317 STOT SE 3, H335

Other relevant ingredients:

Name	Product identifier	Classification according to Regulation (EC) No 1272/2008 [CLP]
Talc (substance with national workplace exposure limit(s))	(CAS No) 14807-96-6 (EC No) 238-877-9	Not classified

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Get medical advice/attention if you feel unwell. If possible, show him this sheet. Failing this, show him the packaging or label. Never give anything by mouth to an unconscious person. Place the affected person in the recovery position.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor if you feel unwell.

First-aid measures after skin contact : Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid measures after ingestion : Rinse mouth. Drink water as a precaution. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation : Harmful if inhaled. May cause respiratory irritation.

Symptoms/effects after skin contact : May cause an allergic skin reaction.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Effects of contact or inhalation might be delayed. Prolonged medical observation may be indicated.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing agents that suit the environment. Carbon dioxide. Extinguishing powder. Water spray. For a significant fire: Alcohol resistant foam.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon dioxide. Carbon monoxide. Isocyanates. Nitrogen oxides. Hydrogen cyanide. Fire will produce dense black smoke.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Prevent fire-fighting water from entering environment.

Protection during firefighting : Use a self-contained breathing apparatus and also a protective suit.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid contact with skin and eyes. Do not breathe vapour/aerosol. Provide adequate ventilation to minimize vapour concentrations. If spilled, may cause the floor to be slippery.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required. In case of inadequate ventilation wear respiratory protection. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Keep wet with water. Sweep or shovel into suitable containers. Do not keep the container sealed – Release of carbon dioxide (CO_2). After 7 – 14 days: Dispose of in accordance with relevant local regulations.

6.4. Reference to other sections

Exposure controls and personal protection, see section 8. Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid breathing vapours, spray. Avoid contact with skin and eyes. Wear personal protective equipment.

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. When using do not eat, drink or smoke. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in original container. Keep container tightly closed. Store in a dry, cool and well-ventilated place. Protect from heat and direct sunlight.

Prohibitions on mixed storage : Keep away from food, drink and animal feedingstuffs. Keep away from: Water. Acids. Bases. Amines. Alcohols.

7.3. Specific end use(s)

Two-component glue: Isocyanate.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Hexamethylene-di-isocyanate, homopolymer (28182-81-2)		
Malta	Local name	Diisocyanates (measured as NCO)
Malta	OEL TWA (µg/m³)	10 µg/m³ 6 µg/m³ (from 01.01.2029)
Malta	OEL STEL (µg/m³)	20 µg/m³ 12 µg/m³ (from 01.01.2029)
Malta	Notation	Skin, Dermal and respiratory sensitisation
Malta	Notes (MT)	A limit value of 10 µg NCO/m³ in relation to a reference period of 8 hours and a short-term exposure limit value of 20 µg NCO/m³ shall apply until 31 December 2028.
Ireland	Local name	Diisocyanates (measured as -NCO)
Ireland	OEL (8 hours ref) (mg/m³)	0.010 mg/m³ 0.006 mg/m³ (from 01.01.2029)
Ireland	OEL (15 min ref) (mg/m³)	0.020 mg/m³ 0.012 mg/m³ (from 01.01.2029)
Ireland	Notes (IE)	BOELV, Skin, Dermal and respiratory sensitisation
Ireland	Local name	Isocyanates
Ireland	BMGV	1 µmol urinary diamine/mol creatinine, Sampling time: Post task

Talc (14807-96-6)		
Ireland	Local name	Talc
Ireland	OEL (8 hours ref) (mg/m³)	0.8 mg/m³ (respirable dust) 10 mg/m³ (total inhalable dust)

Hexamethylene-di-isocyanate, homopolymer (28182-81-2)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	1 mg/m³
Long-term - local effects, inhalation	0.5 mg/m³
PNEC (STP)	
PNEC sewage treatment plant	88 mg/l

8.2. Exposure controls

Appropriate engineering controls	:	Provide local exhaust or general room ventilation to minimize vapour concentrations.
Hand protection	:	Wear suitable gloves (EN 374). Butyl rubber, > 0.5 mm. Fluoroelastomer (FKM), > 0.4 mm. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye protection	:	Chemical goggles or safety glasses (EN ISO 16321).
Skin and body protection	:	Wear suitable protective clothing.
Respiratory protection	:	In case of inadequate ventilation wear respiratory protection. Respiratory protection with filter type A/P (EN 14387).
Environmental exposure controls	:	Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Colourless
Odour	:	Characteristic, slight
Melting point/freezing point	:	No data available
Boiling point or initial boiling point and boiling range	:	No data available
Flammability	:	No data available
Lower and upper explosion limit	:	No data available
Flash point	:	228 °C (hexamethylene-di-isocyanate)
Auto-ignition temperature	:	No data available
Decomposition temperature	:	250 °C (hexamethylene-di-isocyanate)
pH	:	Not applicable
Kinematic viscosity	:	No data available
Solubility	:	Water: Not miscible.
Partition coefficient n-octanol/water (log value)	:	Not applicable
Vapour pressure	:	No data available
Density and/or relative density	:	No data available
Relative vapour density	:	No data available
Particle characteristics	:	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Explosive properties	:	None
Oxidising properties	:	None

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Polymerizes on exposure to water (moisture): Polyurea.

10.2. Chemical stability

Stable under use and storage conditions as recommended in section 7.

10.3. Possibility of hazardous reactions

Reacts violently with: Amines, alcohols. Contact with water liberates carbon dioxide (CO_2).

10.4. Conditions to avoid

Protect from heat and direct sunlight.

10.5. Incompatible materials

Water. Acids. Bases. Amines. Alcohols.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. In case of fire: Carbon dioxide. Carbon monoxide. Toxic gases and vapours. Isocyanates. Nitrogen oxides. Hydrogen cyanide.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity	:	Harmful if inhaled.

Hexamethylene-di-isocyanate, homopolymer (28182-81-2)	
LD50 oral rat	> 2500 mg/kg
LD50 dermal rat	> 2000 mg/kg

Skin corrosion/irritation : Not classified
Based on available data, the classification criteria are not met

Serious eye damage/irritation : Not classified
Based on available data, the classification criteria are not met

Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified
Based on available data, the classification criteria are not met

Carcinogenicity : Not classified
Based on available data, the classification criteria are not met

Reproductive toxicity : Not classified
Based on available data, the classification criteria are not met

Specific target organ toxicity (single exposure) : May cause respiratory irritation.

Specific target organ toxicity (repeated exposure) : Not classified
Based on available data, the classification criteria are not met

Aspiration hazard : Not classified
Based on available data, the classification criteria are not met

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disruption for human health : The mixture has no endocrine disrupting properties.

11.2.2. Other information

Potential adverse human health effects and symptoms : Contains isocyanates. May produce an allergic reaction. Persons already sensitised to diisocyanates may develop allergic reactions when using this product. Effects of contact or inhalation might be delayed. People who have chronic respiratory disorders should not work with isocyanate-based products.

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity : Not classified

Chronic aquatic toxicity : Not classified

Hexamethylene-di-isocyanate, homopolymer (28182-81-2)	
LL0 fish	≥ 100 mg/l 96 h, Danio rerio
EL50 crustacean	127 mg/l 48 h, Daphnia magna
EC50 algae	> 1000 mg/l 72 h, Scenedesmus subspicatus

12.2. Persistence and degradability

Hexamethylene-di-isocyanate, homopolymer (28182-81-2)	
Persistence and degradability	Not readily biodegradable.
Biodegradation	1 %, 28 d

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Endocrine disrupting properties

Endocrine disruption for the environment : The mixture has no endocrine disrupting properties.

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Dispose in a safe manner in accordance with local/national regulations.

Waste treatment methods : Dispose of this material and its container at hazardous or special waste collection point. Do not empty into drains.

Waste disposal recommendations	:	Empty the packaging completely prior to disposal. When totally empty, containers are recyclable like any other packing.
European List of Waste (LoW) code	:	08 05 01* - waste isocyanates
Waste code	:	The valid EWC waste code numbers are source related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

14.1. UN number or ID number

UN-No. (ADR)	:	Not applicable
UN-No. (IMDG)	:	Not applicable
UN-No. (IATA)	:	Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR)	:	Not applicable
Proper Shipping Name (IMDG)	:	Not applicable
Proper Shipping Name (IATA)	:	Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	:	Not applicable

IMDG

Transport hazard class(es) (IMDG)	:	Not applicable

IATA

Transport hazard class(es) (IATA)	:	Not applicable

14.4. Packing group

Packing group (ADR)	:	Not applicable
Packing group (IMDG)	:	Not applicable
Packing group (IATA)	:	Not applicable

14.5. Environmental hazards

Dangerous for the environment	:	No
Marine pollutant	:	No
Other information	:	No supplementary information available.

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List).

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List.

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals).

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants).

Ozone Regulation (2024/590)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer).

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors).

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances).

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Changes compared to the previous version : Section 2.3
Section 8.1

Abbreviations and acronyms:

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
EC50	The effective concentration of substance that causes 50% of the maximum response (Median Effective Concentration)
IATA	International Air Transport Association
IMDG	“International Maritime Dangerous Goods Code” for the transport of dangerous goods by sea
LC50	Lethal Concentration to 50 % of a test population (Median Lethal Concentration)
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
NOEC/L	No Observed Effect Concentration/Level
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent, Bioaccumulative and Toxic substance
PNEC	Predicted No-Effect Concentration
REACH	Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
SDS	Safety Data Sheet
STP	Sewage Treatment Plant
UFI	Unique Formula Identifier
vPvB	Very Persistent and Very Bioaccumulative

Full text of H- and EUH-phrases:

Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H317	May cause an allergic skin reaction.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
EUH204	Contains isocyanates. May produce an allergic reaction.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.