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

1.1 Product identifier

Trade name/designation

YP21-0000-0AL	BergerBond Primer P
UFI:	JG63-Y1EV-500P-HE1V

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

Relevant identified uses

Reserved for industrial and professional use. Plating agent

1.3 Details of the supplier of the safety data sheet

Supplier

Berger-Seidle GmbH
Maybachstr. 2
67269 Grünstadt
Germany

Telephone: +49 6359 8005-0
Email: info@berger-seidle.de
Website: www.berger-seidle.de

Department responsible for information

Email (competent person)	Sicherheitsdaten@berger-seidle.de
Information telephone	+49 6359 8005 0

1.4 Emergency telephone number

Emergency telephone number 24 hr. emergency phone number	+49 700 24112112

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

Acute Tox. 4 inhalative	H332 Harmful if inhaled.
Carc. 2	H351 Suspected of causing cancer.
Eye Irrit. 2	H319 Causes serious eye irritation.
Resp. Sens. 1	H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
STOT RE 2	H373 May cause damage to organs through prolonged or repeated exposure.
STOT SE 3 Irritation to respiratory tract	H335 May cause respiratory irritation.
Skin Irrit. 2	H315 Causes skin irritation.
Skin Sens. 1	H317 May cause an allergic skin reaction.

2.2 Label elements

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

Hazard pictograms



GHS07 GHS08

Signal word

Danger

Hazard statements

H332	Harmful if inhaled.
H351	Suspected of causing cancer.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H335	May cause respiratory irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements

P260	Do not breathe vapours.
P280	Wear protective gloves/protective clothing and eye protection/face protection.
P284	In case of inadequate ventilation wear respiratory protection.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.

Hazard components for labelling

Aromatic polyisocyanate prepolymer (4,4'-MDI/PPG)
Aromatic polyisocyanate prepolymer (MDI-based)
Diphenylmethane diisocyanate, isomers and homologues

Supplemental hazard information

EUH204 Contains isocyanates. May produce an allergic reaction.

Other labelling

As from 24 August 2023 adequate training is required before industrial or professional use.

2.3 Other hazards

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.
This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.
Persons already sensitised to diisocyanates may develop allergic reactions when using this product.

SECTION 3: Composition/information on ingredients.

3.2 Mixtures

Description

Isocyanathaltige Zubereitungen

Hazardous ingredients

CAS No. EC No. Index No.	Substance name REACH No. Classification according to Regulation (EC) No 1272/2008 [CLP]	weight-%
- 905-806-4 -	**Aromatic polyisocyanate prepolymer (MDI-based)** 01-2119457015-45-XXXX Skin Sens. 1 H317 / Eye Irrit. 2 H319 / Acute Tox. 4 H332 / Resp. Sens. 1 H334 / STOT SE 3 H335 / Carc. 2 H351 / STOT RE 2 H373	50,0 < 70,0
9048-57-1 500-028-8 -	**Aromatic polyisocyanate prepolymer (4,4'-MDI/PPG)** Skin Irrit. 2 H315 / Skin Sens. 1B H317 / Eye Irrit. 2 H319 / Acute Tox. 4 H332 / Resp. Sens. 1 H334 / STOT SE 3 H335 / Carc. 2 H351 / STOT RE 2 H373	20,0 < 25,0
9016-87-9 618-498-9 -	**Diphenylmethane diisocyanate, isomers and homologues** Skin Irrit. 2 H315 / Skin Sens. 1 H317 / Eye Irrit. 2 H319 / Acute Tox. 4 H332 / Resp. Sens. 1 H334 / STOT SE 3 H335 / Carc. 2 H351 / STOT RE 2 H373 ATE (inhalative): = 0.49 mg/L (4 h) ATE (oral): > 10,000 mg/kg ATE (dermal): > 9,400 mg/kg	12,5 < 15,0

Remark

Full text of H- and EUH-statements: see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

Following inhalation

In case of irregular breathing or respiratory arrest provide artificial respiration.Remove casualty to fresh air and keep warm and at rest.

Following skin contact

Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

Following ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

Self-protection of the first aider

First aider: Pay attention to self-protection!

4.2 Most important symptoms and effects, both acute and delayed

Symptoms

In all cases of doubt, or when symptoms persist, seek medical advice.

4.3 Indication of any immediate medical attention and special treatment needed

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

alcohol resistant foam, Carbon dioxide (CO2), Powder, spray mist, (water)

Unsuitable extinguishing media

Strong water jet

5.2 Special hazards arising from the substance or mixture

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

5.3 Advice for firefighters

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Ventilate affected area. Do not breathe vapours.

6.2 Environmental precautions

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

6.3 Methods and material for containment and cleaning up

For containment

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13).

For cleaning up

Clean using cleansing agents. Do not use solvents.

6.4 Reference to other sections

Safe handling: see section 7
Personal protection equipment: refer to section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling

Avoid contact with skin, eyes and clothes. Personal protection equipment: see section 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

Advices on general occupational hygiene

When using do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store containers carefully closed and upright to prevent any leaks.

Hints on joint storage

Keep away from strongly acidic and alkaline materials as well as oxidizers.

Storage class LGK10 - Combustible liquids that cannot be assigned to any of the above storage classes

Further information on storage conditions

Keep container tightly closed. Smoking is forbidden. Access only for authorised persons. Store containers carefully closed and upright to prevent any leaks. Store in a well-ventilated and dry room at temperatures between 5 °C and 25 °C.

7.3 Specific end use(s)

Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

No data available

Biological limit values

No data available

DNEL worker

CAS No.	Substance name	DNEL type	DNEL value
-	Aromatic polyisocyanate prepolymer (MDI-based)	Acute - inhalation, local effects	0.1 mg/m³
-	Aromatic polyisocyanate prepolymer (MDI-based)	Long-term – inhalation, local effects	0.05 mg/m³

DNEL Consumer

CAS No.	Substance name	DNEL type	DNEL value
-	Aromatic polyisocyanate prepolymer (MDI-based)	Long-term – inhalation, local effects	0.025 mg/m³
-	Aromatic polyisocyanate prepolymer (MDI-based)	Acute - inhalation, local effects	0.05 mg/m³

PNEC

CAS No.	Substance name	PNEC type	PNEC Value
-	Aromatic polyisocyanate prepolymer (MDI-based)	aquatic, intermittent release	37 µg/L
-	Aromatic polyisocyanate prepolymer (MDI-based)	aquatic, marine water	0.37 µg/L
-	Aromatic polyisocyanate prepolymer (MDI-based)	sediment, freshwater	11.7 mg/kg sediment dw
-	Aromatic polyisocyanate prepolymer (MDI-based)	sediment, marine water	1.17 mg/kg sediment dw

8.2 Exposure controls

Provide good ventilation.This can be achieved with local or room suction.

Personal protection equipment

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Hand protection

Suitable material: Butyl caoutchouc (butyl rubber)
Thickness of the glove material >= 0.1 mm

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin.
Recommended glove articles: EN ISO 374

Skin protection

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Eye/face protection

Eye glasses with side protection: EN 166

Body protection

When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn. Anti-static clothing including shoes are recommended.

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Colour	brown
Odour	characteristic
pH at 20 °C	not applicable
Melting point/freezing point	not determined
Initial boiling point and boiling range	181.3 °C
	Source: Aromatic polyisocyanate prepolymer (MDI-based)
Flash point	111 °C
flammability	not applicable
Lower explosion limit at 20°C	not determined
Upper explosion limit at 20°C	not determined
Vapour pressure at 20°C	0.000006 mbar
Relative vapour density	not applicable
Density at 20 °C	1.15 kg/l
Water solubility at 20°C	not determined
Partition coefficient: n-octanol/water	see section 12
Ignition temperature in °C	576 °C
	Source: Aromatic polyisocyanate prepolymer (MDI-based)
Decomposition temperature	not determined
Viscosity at 40 °C	not determined
particle characteristics	not applicable

9.2

aromatic hydrocarbons	0.0 %

SECTION 10: Stability and reactivity

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

10.3 Possibility of hazardous reactions

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

10.4 Conditions to avoid

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7. Hazardous decomposition byproducts may form with exposure to high temperatures.

10.5 Incompatible materials

No further relevant information available.

10.6 Hazardous decomposition products

Decomposition products in case of fire: see section 5.

SECTION 11: Toxicological information

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

Acute toxicity

Harmful if inhaled.

Diphenylmethane diisocyanate, isomers and homologues
LC50: inhalative (Rat): = 0.49 mg/L (4 h)

LD50: oral (Rat): > 10,000 mg/kg

LD50: dermal (Rabbit): > 9,400 mg/kg

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

May cause an allergic skin reaction.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Overall assessment on CMR properties

Suspected of causing cancer.

STOT-single exposure

May cause respiratory irritation.

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

Based on available data, the classification criteria are not met.

Practical experience/human evidence

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: Headache, Dizziness, fatigue, amyosthenia, Dizziness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

11.2 Information on other hazards

Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

SECTION 12: Ecological information

12.1 Toxicity

Based on available data, the classification criteria are not met.

Diphenylmethane diisocyanate, isomers and homologues
EC50 > 100 mg/L (3 h)

Acute (short-term) fish toxicity
Aromatic polyisocyanate prepolymer (MDI-based)
LL50: > 100 mg/L (96 h)

Acute (short-term) toxicity to algae and cyanobacteria
NOELR: >= 100 mg/L (72 h)

Acute (short-term) toxicity to crustacea
EL50: 9 mg/L (48 h)

Algae toxicity
Diphenylmethane diisocyanate, isomers and homologues
NOEC = 1,640 mg/L (72 h)

Chronical earthworm toxicity (reproduction)
EC50 (Earthworm): > 1,000 mg/kg (14 d)

Daphnia toxicity
EC50 (Daphnia magna (Big water flea)): > 1,000 mg/L (24 h)

Fish toxicity
LC50: > 1,000 mg/L (96 h)

Toxicity to microorganisms
Aromatic polyisocyanate prepolymer (MDI-based)
1,000 mg/L (3 h)

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product/Packaging disposal

Do not empty into drains; dispose of this material and its container in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Waste codes/waste designations according to EWC/AVV

160303* - inorganic wastes containing hazardous substances
* Hazardous waste according to Directive 2008/98/EC (waste framework directive).

Other disposal recommendations

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

SECTION 14: Transport information

14.1 UN number or ID number

not applicable

14.2 UN proper shipping name

Land transport (ADR/RID)

No dangerous good in sense of these transport regulations.

Sea transport (IMDG)

No dangerous good in sense of these transport regulations.

Air transport (ICAO-TI / IATA-DGR)

No dangerous good in sense of these transport regulations.

14.3 Transport hazard class(es)

not applicable

14.4 Packing group

not applicable

14.5 Environmental hazards

Land transport (ADR/RID)	not applicable
Sea transport (IMDG)	not applicable

14.6 Special precautions for user

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.
Advices on safe handling: see parts 6 - 8

14.7 Maritime transport in bulk according to IMO instruments

No transport as bulk according to IBC Code.

14.8 Additional information

Land transport (ADR/RID)

not applicable

Sea transport (IMDG)

not applicable

Air transport (ICAO-TI / IATA-DGR)

not applicable

SECTION 15: Regulatory information

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

EU legislation

Authorisations and/or restrictions on use

Regulation (EC) No. 1907/2006 (REACH), Annex XVII (restrictions)

Use restriction according to REACH annex XVII, no.: 03, 74

Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive 92/85/EEC or stricter national regulations, if applicable. Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC) or stricter national regulations, if applicable.

Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive]

VOC value: 0 g/l

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]
Hazard categories / Named dangerous substances

This product is not classified according to Directive 2012/18/EU.

National regulations

Observe in addition any national regulations!

Substance/product listed in the following inventories

U.S. Toxic Substances Control Act (TSCA) - US

15.2 Chemical Safety Assessment

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

SECTION 16: Other information

List of relevant hazard statements and/or precautionary statements from sections 2 to 15

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
H373	May cause damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Acute Tox. 4 inhalative	Calculation method.
Carc. 2	Calculation method.
Eye Irrit. 2	Calculation method.
Resp. Sens. 1	Calculation method.
STOT RE 2	Calculation method.
STOT SE 3 Irritation to respiratory tract	Calculation method.
Skin Irrit. 2	Calculation method.
Skin Sens. 1	Calculation method.

Key literature references and sources for data

Data arise from reference works and literature.

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
OEL: Occupational Exposure Limit Value
BLV: Biological limit values
CAS: Chemical Abstracts Service
CLP: Classification, Labelling and Packaging
CMR: Carcinogenic, Mutagenic and Reprotoxic
DIN: German Institute for Standardization / German industrial standard
DNEL: Derived No-Effect Level
EAKV: European Waste Catalogue Directive
EC: Effective Concentration
EC: European Community
EN: European Standard
EU/EEA: European Economic Area
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO-TI: International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG Code: International Maritime Code for Dangerous Goods
ISO: International Organization for Standardization
LC: Lethal Concentration
LD: Lethal Dose
MAK:
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
OECD: Organisation for Economic Cooperation and Development
PBT: persistent, bioaccumulative, toxic
PNEC: Predicted No Effect Concentration
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
UN: United Nations
VOC: Volatile Organic Compounds
vPvB: very persistent and very bioaccumulative

Indication of changes

* Data changed compared with the previous version.