

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form	: Mixture
Product name	: PUD 102
Type of product	: Waterborne, anionic, polyester-based polyurethane dispersion

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

Main use category	: Industrial use
Use of the substance/mixture	: The product is used as coating material.

1.3. Details of the supplier of the safety data sheet

DENGE KİMYA VE TEKSTİL SAN. TİC. A.Ş.
Velimeşe Organize Sanayi Bölgesi Mah.
259.Sok. No:4/1
Ergene TEKİRDAĞ TÜRKİYE
T +90 (0282) 674 54 00 - F +90 (0282) 674 50 01
mduvenci@dengekimya.com - www.vynax.com.tr

1.4. Emergency telephone number

No additional information available

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture**

Classification according to Classification, Labelling and Packaging of Substances and Mixtures (SEA) Regulation published in the Official Journal numbered 28848 on December 11, 2013.

Not classified

Adverse physicochemical, human health and environmental effects : To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

Classification according to Classification, Labelling and Packaging of Substances and Mixtures (SEA) Regulation published in the Official Journal numbered 28848 on December 11, 2013.

EUH-statements (SEA) : EUH208 - Contains 1,2-benzisothiazol-3(2H)-one (2634-33-5). May produce an allergic reaction.

2.3. Other hazards**Other hazards not contributing to the classification**

No additional information available

SECTION 3: Composition/information on ingredients**3.1. Substances**

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Classification, Labelling and Packaging of Substances and Mixtures (SEA) Regulation published in the Official Journal numbered 28848 on December 11, 2013.
1,2-benzisothiazol-3(2H)-one	CAS-No.: 2634-33-5 EC-No.: 220-120-9 EC Index-No.: 613-088-00-6	< 0,02	Acute Tox. 4 (Oral), H302 Acute Tox. 2 (Inhalation:dust,mist), H330 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Specific concentration limits:		
Name	Product identifier	Specific concentration limits
1,2-benzisothiazol-3(2H)-one	CAS-No.: 2634-33-5 EC-No.: 220-120-9 EC Index-No.: 613-088-00-6	(0,036 ≤ C ≤ 100) Skin Sens. 1A; H317

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

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: If medical advice is needed, have product container or label at hand. If you feel unwell, seek medical advice (show the label where possible). Never give anything by mouth to an unconscious person. People with over sensibility problems are not allowed to work or be exposed to the product. Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor. Remove person to fresh air and keep comfortable for breathing. Allow the victim to rest.
First-aid measures after skin contact	: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Do not remove clothing if it sticks to the skin. Be careful, the product may remain trapped under clothing, footwear or a wrist-watch. If skin irritation occurs: Get medical advice/attention. Wash skin with plenty of water.
First-aid measures after eye contact	: Remove contact lenses, if present and easy to do. Continue rinsing. Immediately rinse with water for a prolonged period while holding the eyelids wide open. Obtain medical attention if pain, blinking or redness persists. Consult an ophthalmologist if irritation persists. Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Rinse mouth out with water. If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting/risk of damage to lungs exceeds poisoning risk. Do not induce vomiting. Give nothing or a little water to drink. Go into open air and ventilate suspected area. Get medical advice/attention if you feel unwell.

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

No additional information available

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
 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.

5.3. Advice for firefighters

- Precautionary measures fire : Evacuate area. Do not allow contact with air. Keep container tightly closed and away from heat, sparks and flame. Local exhaust is needed at source of dust. Keep away from combustible materials. Eliminate all ignition sources if safe to do so. Keep container closed when not in use.
- Firefighting instructions : In case of fire: stop leak if safe to do so. Cool laterally with water containers exposed to flames, even after the fire is extinguished. Fight fire from a safe distance or use hoses with support or cannon engine. Prevent fire fighting water from entering the environment. In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion. DO NOT fight fire when fire reaches explosives. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
- Other information : On exposure to high temperature, may decompose, releasing toxic gases.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Evacuate area. Stop leak if safe to do so. Absorb spillage to prevent material damage. Isolate from fire, if possible, without unnecessary risk. Use special care to avoid static electric charges. No open flames. No smoking. Do not handle until all safety precautions have been read and understood. Avoid contact with skin and eyes. Notify authorities if product enters sewers or public waters.

6.1.1. For non-emergency personnel

- Emergency procedures : Ventilate spillage area. Avoid contact with skin, eyes and clothing. Evacuate unnecessary personnel. Only qualified personnel equipped with suitable protective equipment may intervene.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so. Use grounded electrical/mechanical equipment. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

6.2. Environmental precautions

- Avoid release to the environment. Prevent liquid from entering sewers, watercourses, underground or low areas. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment	: Consult an expert on waste disposal or treatment. Do not touch or walk on the spilled product. Cover spill with non combustible material, e.g.: sand, earth, vermiculite. Collect spillage. Using a clean shovel, put the material in a dry container and cover without compressing it. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
Methods for cleaning up	: Take up liquid spill into absorbent material. If the product is liquid. Soak up with inert absorbent material (for example sand, sawdust, a universal binder, silica gel). If the product is solid. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures	: Remove contaminated clothes. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Take precautionary measures against static discharge. Store in a well-ventilated place. Keep container tightly closed. Comply with applicable regulations.
Storage conditions	: Protect from sunlight. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Store in a closed container. Protect from moisture. Keep only in original container. Store in a well-ventilated place. Keep cool.
Incompatible products	: Refer to the detailed list of incompatible materials in section 10 Stability/Reactivity.
Incompatible materials	: For further information, refer to section 10 : "Stability and Reactivity".
Storage area	: Store away from heat. Store in a well-ventilated place.
Packaging materials	: Keep only in the original container in a cool, well-ventilated place away from combustible materials.
Storage class (LGK, TRGS 510)	: LGK 12 - Non-combustible liquids

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls	: Measure concentrations regularly, and at the time of any change occurring in conditions likely to have consequences on workers exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure that there is a suitable ventilation system. Ensure good ventilation of the work station.
Personal protective equipment	: ISO 374-1. Protective goggles. ISO 16321-1. Dust formation: dust mask. Insulated gloves. Protective clothing. Gloves. Safety glasses.
Hand protection	: Protective gloves

- Eye protection : Safety glasses
 Skin and body protection : Wear suitable protective clothing
 Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s)



- Environmental exposure controls : Avoid release to the environment.
 Consumer exposure controls : The substance is not classified for human health hazards or for environment effects and it is not PBT or vPvB so that no exposure assessment or risk characterisation is required. For tasks where the intervention of workers is required, the substance must be handled in accordance with good industrial.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
 Appearance : Milky liquid.
 Colour : No data available
 Odour : No data available
 Odour threshold : No data available
 pH : 8±1
 Relative evaporation rate (butylacetate=1) : No data available
 Melting point : Not applicable
 Freezing point : No data available
 Boiling point : No data available
 Flash point : No data available
 Auto-ignition temperature : No data available
 Decomposition temperature : No data available
 Flammability : Not applicable
 Vapour pressure : No data available
 Relative vapour density at 20°C : No data available
 Relative density : No data available
 Solubility : No data available
 Partition coefficient n-octanol/water (Log Pow) : No data available
 Viscosity, kinematic : No data available
 Viscosity, dynamic : No data available
 Explosive properties : No data available
 Oxidising properties : No data available
 Explosive limits : No data available

9.2. Other information

- Solid content (105 °C) : 40±2

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
 Acute toxicity (dermal) : Not classified
 Acute toxicity (inhalation) : Not classified

PUD 102	
LD50 oral rat	> 5000 mg/kg Acute toxicity values of the chemical mixture (calculated according to Article 3.1)]

1,2-benzisothiazol-3(2H)-one (2634-33-5)	
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation : Not classified
 pH: 8±1
 Serious eye damage/irritation : Not classified
 pH: 8±1
 Respiratory or skin sensitisation : Not classified
 Germ cell mutagenicity : Not classified
 Carcinogenicity : Not classified
 Reproductive toxicity : Not classified

1,2-benzisothiazol-3(2H)-one (2634-33-5)	
NOAEL (animal/female, F0/P)	112 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: EPA OPPTS 870.3800 (Reproduction and Fertility Effects)
NOAEL (animal/female, F1)	56,6 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: EPA OPPTS 870.3800 (Reproduction and Fertility Effects)

STOT-single exposure : Not classified
 STOT-repeated exposure : Not classified
 Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
 Hazardous to the aquatic environment, short-term (acute) : Not classified
 Hazardous to the aquatic environment, long-term (chronic) : Not classified

PUD 102	
LC50 - Fish [1]	> 100 mg/l [Acute toxicity values of the chemical mixture (calculated according to Article 4.1)]
1,2-benzisothiazol-3(2H)-one (2634-33-5)	
LC50 - Fish [1]	≈ 16,7 mg/l Test organisms (species): Cyprinodon variegatus
LC50 - Fish [2]	2,15 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	2,94 mg/l Test organisms (species): Daphnia magna
EC50 - Crustacea [2]	2,9 mg/l Test organisms (species): Daphnia magna

12.2. Persistence and degradability

PUD 102	
Biodegradation	< 70 % (OECD 301A, OECD301,ISO 7827:test method is according to raw materials)

12.3. Bioaccumulative potential

PUD 102	
Bioaccumulative potential	No additional information available

12.4. Mobility in soil

PUD 102	
Mobility in soil	No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Ozone : Not classified
 Other adverse effects : No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional waste regulation : Disposal must be done according to official regulations. Waste Management Regulation published in the Official Journal numbered 29314 on April 2, 2015.

Waste treatment methods : Assure that emissions are compliant with all applicable air pollution control regulations. Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : Avoid release to the environment.

Additional information : Consult an expert on waste disposal or treatment. Do not re-use empty containers.

SECTION 14: Transport information

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

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

ADN

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

RID

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

14.4. Packing group

Packing group (ADR) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

Packing group (ADN) : Not applicable

Packing group (RID) : 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**

No data available

Transport by sea

No data available

Air transport

No data available

Inland waterway transport

No data available

Rail transport

No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. National regulations

Local regulations (Turkey) :

- : Regulation on Transportation of Dangerous Goods by Road published in the Official Journal numbered 28801 on October 24, 2013
- Regulation on Use of Personal Protective Equipments in Workplaces published in the Official Journal numbered 28695 on July 2, 2013
- Occupational Health and Safety Regulation published in the Official Journal numbered 25311 on December 9, 2003
- Regulation on Health and Safety Precautions When Working with Carcinogenic and Mutagenic Substances published in the Official Journal numbered 28730 on August 6, 2013
- Personal Protective Equipment Regulation published in the Official Journal numbered 30761 on May 1, 2019
- Classification according to Classification, Labelling and Packaging of Substances and Mixtures (SEA) Regulation published in the Official Journal numbered 28848 on December 11, 2013.
- Regulation on Test Methods that will be Applied to Determine the Physicochemical, Toxicological and Ecotoxicological Properties of Substances and Mixtures published in the Official Journal numbered 28848 on December 11, 2013
- Regulation on Health and Safety Precautions When Working with Chemical Substances published in the Official Journal numbered 28733 on August 12, 2013
- Waste Management Regulation published in the Official Journal numbered 29314 on April 2, 2015
- according to By-law on Registration, Evaluation, Authorization and Restriction of Chemicals (O.G: 23.06.2017 - 30105).

This product doesn't contain any substances that is controlled or prohibited for use according to the Regulation on Ozone Depleting Substances published in the Official Journal numbered 30031 on April 7, 2017.

Contains no substances with KKDIK Annex 17 restrictions

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration

Safety Data Sheet

according to Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals published in the Official Journal numbered 30105 on June 23, 2017

SDS TR reference: SDS.002

Issue date: 24.03.2023 Revision date: 24.10.2024 Version: 2.0

NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative

Data sources

: ECHA (European Chemicals Agency). Classification according to Classification, Labelling and Packaging of Substances and Mixtures (SEA) Regulation published in the Official Journal numbered 28848 on December 11, 2013.

Full text of H- and EUH-statements	
Acute Tox. 2 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 2
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
EUH208	Contains 1,2-benzisothiazol-3(2H)-one (2634-33-5). May produce an allergic reaction.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1A	Skin sensitisation, category 1A
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Safety Data Sheet author's	
Name	MERVE ASLI DÜVENCI
Certificate number	LONCA KDU 65/2021.10
Certificate valid until	06/03/2026
Contact information	mduvenci@dengekimya.com

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.