

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH), (EU) 2020/878

Revision date: 23 May 2023

Print date: 15 Feb 2024

Version: 2

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PU Plast clear 1min. 50ml (Comp. A)

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

1.1. Product identifier

Trade name/designation:

PU Plast clear 1min. 50ml (Comp. A)

Article No.:

T910002

UFI:

DE95-3T6U-290S-Y5J2

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

Use of the substance/mixture:

2K PU adhesive

1.3. Details of the supplier of the safety data sheet

Supplier:

KANDO Service GmbH

Hartleitnerstraße 3

4653 Eberstalzell

Austria

Telephone: +43 (0) 7241 213 79

E-mail: msds@kando.eu

1.4. Emergency telephone number

Vergiftungsinformationszentrale (VIZ), Stubenring 6, 1010 Wien, 24h: 01 406 43 43, Montag - Freitag: 8 bis 16 Uhr, Tel.: 01 406 68 98 (keine medizinische Auskunft) (Only available during office hours.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
Serious eye damage/eye irritation (Eye Irrit. 2)	H319: Causes serious eye irritation.	

2.2. Label elements

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

Hazard pictograms:



GHS07

Exclamation mark

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Signal word: Warning

Hazard statements for health hazards

H319	Causes serious eye irritation.
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Precautionary statements Prevention

P264	Wash hands thoroughly after handling.
P280	Wear eye protection/face protection.

Precautionary statements Response

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/attention.

2.3. Other hazards

Other adverse effects:

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients / Hazardous impurities / Stabilisers:

Product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 102-60-3 EC No.: 203-041-4 REACH No.: 01-2119552434-41	1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol Eye Irrit. 2 (H319) ⚠ Warning	20 - ≤ 50 Vol-%
CAS No.: 64852-22-8	Glycerylpoly(oxypropylene)triamine Aquatic Chronic 3 (H412), Eye Dam. 1 (H318), Skin Irrit. 2 (H315) ⚠ Danger	1 - ≤ 3 Vol-%

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

SECTION 4: First aid measures

4.1. Description of first aid measures

Following inhalation:

The affected person must be carried outside. If breathing is labored, consult a doctor.

In case of skin contact:

Soiled, soaked clothing must be taken off. One must take a shower immediately. In case of skin irritation, consult a physician. Wash contaminated clothing before reuse.

After eye contact:

Any contact lenses must be removed. One must immediately and extensively wash with water for at least 30 / 60 minutes, opening the eyelids well. Consult a doctor if symptoms persist.

Following ingestion:

A doctor must be consulted immediately. Vomiting may only be induced on the doctor's orders. Nothing may be administered orally without the doctor's order or if the person concerned is unconscious.

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

There is no known specific information on symptoms and effects caused by this product.

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

No further relevant information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Carbon dioxide (CO₂), Foam, Powder, Water mist

Unsuitable extinguishing media:

None known.

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5.2. Special hazards arising from the substance or mixture

Avoid inhalation of combustion products.

5.3. Advice for firefighters

The containers shall be cooled with water jets to prevent the decomposition of the product and the formation of potentially harmful substances. Complete fire protective clothing shall be worn at all times. Extinguishing water that is not allowed to enter the sewage pipes shall be collected. The water used for extinguishing and the fire residues shall be taken up in accordance with the regulations in force.

5.4. Additional information

Personal protection: Normal firefighting clothing, e.g. an open-circuit compressed air respirator (EN 137) firefighting kit (EN469), firefighting gloves (EN 659) and firefighting boots (HO A 29 or A30)

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

The leakage may be blocked if there is no danger. Appropriate protective devices (including personal protective devices as per para. 8 from the safety instructions) shall be put on to prevent contamination of skin, eyes and personal clothing. These instructions apply to both reprocessing supervisors and emergency stop interventions.

6.1.2. For emergency responders

No data available

6.2. Environmental precautions

Prevent the product from entering waste water, surface water, ground water.

6.3. Methods and material for containment and cleaning up

For cleaning up:

The spilled product must be sucked into a suitable container. The container to be used shall be tested for compatibility with the product, subject to section 10. The residual product shall be absorbed with inert absorbent material. Adequate ventilation of the affected area shall be provided. Contaminated material must be disposed of in accordance with the regulations in section 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Do not handle the product until you have read all other sections of this safety sheet. Avoid dispersal of the product in the environment. Do not eat, drink or smoke while using the product. Before entering the eating area, remove wetted clothing and protective devices.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels:

Store the product in clearly labelled containers. Keep containers away from incompatible materials, referring to section 10.

Storage class (TRGS 510, Germany): 10 - Combustible liquids that cannot be assigned to any of the above storage classes

7.3. Specific end use(s)

Recommendation:

No further relevant information available.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure limit values

No data available

8.1.2. Biological limit values

No data available

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol CAS No.: 102-60-3 EC No.: 203-041-4	8.7 mg/m ³	① DNEL worker ② Long-term - inhalation, systemic effects
1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol CAS No.: 102-60-3 EC No.: 203-041-4	29.4 mg/m ³	① DNEL worker ② Long-term - inhalation, systemic effects
1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol CAS No.: 102-60-3 EC No.: 203-041-4	2.5 mg/kg bw/day	① DNEL worker ② Long-term - dermal, systemic effects
1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol CAS No.: 102-60-3 EC No.: 203-041-4	4.2 mg/kg bw/day	① DNEL worker ② Long-term - dermal, systemic effects
1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol CAS No.: 102-60-3 EC No.: 203-041-4	2.5 mg/kg bw/day	① DNEL worker ② Long-term - oral, systemic effects

Substance name	PNEC Value	① PNEC type
1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol CAS No.: 102-60-3 EC No.: 203-041-4	0.85 mg/L	① PNEC aquatic, freshwater
1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol CAS No.: 102-60-3 EC No.: 203-041-4	0.085 mg/L	① PNEC aquatic, marine water
1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol CAS No.: 102-60-3 EC No.: 203-041-4	0.193 mg/kg	① PNEC sediment, freshwater
1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol CAS No.: 102-60-3 EC No.: 203-041-4	0.0193 mg/kg	① PNEC sediment, marine water

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Emergency stop showers with face-eye-rinsing are to be provided.

8.2.2. Personal protection equipment

Eye/face protection:

The use of penetration-proof goggles is recommended (ref. standard EN 166).

Skin protection:

Hand protection:

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The hands must be protected with category III work gloves (ref. standard EN 374). For the final choice of material for the work gloves, the following aspects must be included: Compatibility, degradation, breaking time and permeability. In the case of preparations, the work glove resistance to chemical agents must be tested before use, as it is unpredictable. Glove wear time is conditioned by exposure time and modes of use.

Glove material: NBR (Nitrile rubber)

Breakthrough time: 240 min.

Thickness of the glove material: 0,5 mm

Skin protection:

Work clothing with long sleeves and category I accident protection shoes must be worn (see Regulation 2016/425 and standard EN ISO 20344). After taking off the protective clothing, one must wash with soap and water.

Respiratory protection:

If the threshold value (e.g. TLV-TWA) of the substance or one or more substances contained in the product is exceeded, it is advisable to wear a mask with a type A filter, the class of which (1, 2 or 3) should be selected according to the highest concentration used. (Ref. standard EN 14387). In the presence of gases or vapours of a different nature and/or gases or vapours containing particles (aerosol, smoke, mist, etc.), use combined filters.

If the technical measures taken are not sufficient to reduce the exposure of the worker to the thresholds considered, the use of respiratory protective devices is necessary. The protection provided by the mask is limited in any case. If the substance under consideration is odourless or its odour threshold exceeds the corresponding TLV-TWA, or in case of emergency, an open-circuit self-operated compressed air respirator (ref. standard EN137) or an external air intake respirator (ref. standard EN138) must be worn. For the correct selection of the respiratory protective device, refer to standard EN 529.

Other protection measures:

Considering that appropriate protective measures should always take precedence over personal protective clothing, ensure that the workplace is well ventilated by effective local exhaust ventilation. For the selection of personal protective equipment, the trusted chemical manufacturers may need to be consulted. The personal protective equipment must be CE marked to indicate its suitability for the applicable regulations.

8.2.3. Environmental exposure controls

Emissions from manufacturing processes, including those from ventilation equipment, should be checked for compliance with environmental legislation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid

Colour: opalescent

Odour: characteristic

Safety relevant basis data

Parameter	Value	① Method ② Remark
pH	No data available	
Melting point	No data available	
Freezing point	No data available	
Initial boiling point and boiling range	> 200 °C	
Flash point	182 °C	
Evaporation rate	No data available	
Auto-ignition temperature	No data available	
Upper/lower flammability or explosive limits	No data available	
Vapour pressure	0.1 Pa	
Vapour density	No data available	
Density	1 g/cm ³	

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Parameter	Value	① Method ② Remark
Bulk density	<i>not applicable</i>	
Water solubility	<i>No data available</i>	
Dynamic viscosity	2,500 mPa* s	
Kinematic viscosity	<i>No data available</i>	

9.2. Other information

No further relevant information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Under normal conditions of use and storage, no hazardous reactions are foreseen.

10.4. Conditions to avoid

none. The usual precautions when handling chemicals must be observed.

10.5. Incompatible materials

No further relevant information available.

10.6. Hazardous decomposition products

No further relevant information available.

SECTION 11: Toxicological information

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

1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol CAS No.: 102-60-3 EC No.: 203-041-4
LD₅₀ oral: >2,000 - 5,000 mg/kg (Rat) OECD 401
LD₅₀ dermal: >2,000 mg/kg (Rat) OECD 402
Glycerylpoly(oxypropylene)triamine CAS No.: 64852-22-8
LD₅₀ oral: 2,690 mg/kg
LD₅₀ dermal: 12,500 mg/kg

Acute oral toxicity:

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

Acute dermal toxicity:

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

Acute inhalation toxicity:

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

Skin corrosion/irritation:

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

Serious eye damage/irritation:

Causes serious eye irritation.

Respiratory or skin sensitisation:

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

Germ cell mutagenicity:

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

Carcinogenicity:

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

Reproductive toxicity:

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

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STOT-single exposure:

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

STOT-repeated exposure:

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

Aspiration hazard:

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

11.2. Information on other hazards

Endocrine disrupting properties:

No further relevant information available.

SECTION 12: Ecological information

12.1. Toxicity

1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol CAS No.: 102-60-3 EC No.: 203-041-4
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LC₅₀ : >100 mg/L 2 d (fish, <i>Leuciscus idus</i>) DIN 38412 T.15
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EC₅₀ : >100 mg/L 2 d (crustaceans, <i>Daphnia magna</i>) 92/69/EC
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EC₅₀ : >100 mg/L 3 d (Algae/water plant, <i>Desmodesmus subspicatus</i>) 84/449/EEC C.3
--

NOEC : ≥10 mg/L 21 d (crustaceans, <i>Daphnia magna</i>) OECD 211

Glycerylpoly(oxypropylene)triamine CAS No.: 64852-22-8

LC₅₀ : 68 mg/L 4 d (fish)

Assessment/classification:

No further relevant information available.

12.2. Persistence and degradability

1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol CAS No.: 102-60-3 EC No.: 203-041-4
--

Biodegradation : Yes, slowly

Additional information:

No further relevant information available.

12.3. Bioaccumulative potential

1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol CAS No.: 102-60-3 EC No.: 203-041-4
--

Log K_{ow} : -2.08

Accumulation / Evaluation:

No further relevant information available.

12.4. Mobility in soil

No further relevant information available.

12.5. Results of PBT and vPvB assessment

1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol CAS No.: 102-60-3 EC No.: 203-041-4
--

Results of PBT and vPvB assessment : —

Glycerylpoly(oxypropylene)triamine CAS No.: 64852-22-8

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

No further relevant information available.

12.7. Other adverse effects

No further relevant information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Reuse if possible. Product residues are to be considered as hazardous waste. The hazardousness of the waste partially containing this product must be evaluated on the basis of the legal provisions in

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force. Disposal must be entrusted to a company authorised for waste management, taking into account national and, where applicable, local regulations.

Waste treatment options

Appropriate disposal / Package:

Uncleaned packaging: Contaminated packaging material must be sent for recycling or disposal in accordance with the country's waste management regulations.

SECTION 14: Transport information

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1. UN number or ID number			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.
14.2. UN proper shipping name			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.
14.3. Transport hazard class(es)			
not relevant	not relevant	not relevant	not relevant
14.4. Packing group			
not relevant	not relevant	not relevant	not relevant
14.5. Environmental hazards			
not relevant	not relevant	not relevant	not relevant
14.6. Special precautions for user			
not relevant	not relevant	not relevant	not relevant

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 legislation

Restrictions on use:

Restrictions on the product or substances according to Annex XVII Regulation (EC) 1907/2006:

Product: point 3

15.1.2. National regulations

No data available

15.2. Chemical Safety Assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

16.1. Indication of changes

No data available

16.2. 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
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
DIN	German Institute for Standardization / German Industrial Standard
DNEL	derived no-effect level

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EC ₅₀	Effective Concentration 50%
EN	European Standard
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
KG	body weight
LC ₅₀	Lethal (fatal) Concentration 50%
LD ₅₀	Lethal (fatal) Dose 50%
NFPA	National Fire Protection Association
NOEC	No Observed Effect Concentration
OECD	Organisation for Economic Cooperation and Development
PBT	persistent and bioaccumulative and toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation and Authorization of Chemicals
RID	Dangerous goods regulations for transport by rail
TRGS	Technische Regeln für Gefahrstoffe
UN	United Nations

16.3. Key literature references and sources for data

No data available

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
Serious eye damage/eye irritation (<i>Eye Irrit. 2</i>)	H319: Causes serious eye irritation.	

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

Hazard statements	
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.

16.6. Training advice

No data available

16.7. Additional information

To the best of our knowledge, the information contained herein is accurate. However, neither the above-mentioned supplier nor its subsidiaries assume any liability with regard to the correctness or completeness of the information provided. A final determination of the suitability of individual materials is the sole responsibility of the user. All materials may involve unknown risks and should be used with caution. While certain risks are described herein, we cannot guarantee that these are the only possible risks.