

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

1.1 Product identifier

2-K-PU Kleber 622, Comp. B

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

1.2.1 Relevant uses

Adhesive
Hardener

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company Ramsauer GmbH & Co KG
Sarstein 17
4822 Bad Goisern / H. / AUSTRIA
Phone +43(0)6135 8205-0
Fax +43(0)6135 8323
Homepage www.ramsauer.at
E-mail office@ramsauer.at

Address enquiries to

Technical information office@ramsauer.at
Safety Data Sheet sdb@chemiebuero.de

1.4 Emergency telephone number

Advisory body +43 (0) 1 406 43 43 (24h)



SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Carc. 2: H351 Suspected of causing cancer.
STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure.
Eye Irrit. 2: H319 Causes serious eye irritation.
Skin Irrit. 2: H315 Causes skin irritation.
STOT SE 3: H335 May cause respiratory irritation.
Resp. Sens. 1: H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Sens. 1: H317 May cause an allergic skin reaction.
Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements

The product is required to be labelled in accordance with regulation (EC) No 1272/2008 (CLP).

Hazard pictograms	 
Signal word	DANGER
Contains:	Diphenylmethanediisocyanate, isomeres and homologues
Hazard statements	H351 Suspected of causing cancer. H373 May cause damage to organs through prolonged or repeated exposure. H319 Causes serious eye irritation. H315 Causes skin irritation. H335 May cause respiratory irritation. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H317 May cause an allergic skin reaction. H412 Harmful to aquatic life with long lasting effects.
Precautionary statements	P260 Do not breathe vapours. P273 Avoid release to the environment. P280 Wear protective gloves / protective clothing / 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 / doctor. P501 Dispose of contents/container in accordance with local/regional/national/international regulation.
Special labelling	EUH204 Contains isocyanates. May produce an allergic reaction.

2.3 Other hazards

Human health dangers	Persons already sensitised to diisocyanates may develop allergic reactions when using this product. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.
Environmental hazards	Does not contain any PBT or vPvB substances.
Other hazards	Further hazards were not determined with the current level of knowledge.

SECTION 3: Composition / Information on ingredients**Product-type:**

The product is a mixture.

Range [%]	Substance
25 - 50	Diphenylmethanediisocyanate, isomeres and homologues CAS: 9016-87-9 GHS/CLP: 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
2,5 - 10	Nonylbenzoate, branched and linear CAS: 670241-72-2, EINECS/ELINCS: 447-010-5, Reg-No.: 01-0000018876-55-XXXX GHS/CLP: Aquatic Chronic 2: H411

Comment on component parts Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
For full text of H-statements: see SECTION 16.

SECTION 4: First aid measures**4.1 Description of first aid measures**

General information	Remove contaminated soaked clothing immediately and dispose of safely.
Inhalation	Remove the victim into fresh air and keep him calm. In the event of symptoms seek medical treatment.
Skin contact	In the event of contact with the skin wash immediately with polyethylene glycol, then with plenty of water. Consult a doctor if skin irritation persists.
Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Do not induce vomiting. Rinse out mouth and give plenty of water to drink. Consult a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

Irritant effects
Allergic reactions

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.
Forward this sheet to the doctor.

SECTION 5: Fire-fighting measures**5.1 Extinguishing media**

Suitable extinguishing media Carbon dioxide.
Dry powder.
Sand.

Extinguishing media that must not be used Full water jet

5.2 Special hazards arising from the substance or mixture

In the event of fire the following can be released:
Nitrogen oxides (NO_x).
Hydrogen cyanide (HCN).
Isocyanate

5.3 Advice for firefighters

Use self-contained breathing apparatus.
Wear full protective suit.
Collect contaminated firefighting water separately, must not be discharged into the drains.
Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation.
Use personal protective equipment.
High risk of slipping due to leakage/spillage of product.

6.2 Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers).
Do not discharge into the drains/surface waters/groundwater.

Ramsauer GmbH & Co KG

4822 Bad Goisern / H.

Date printed 28.02.2017, Revision 28.02.2017

Version 01

Page 4 / 11

6.3 Methods and material for containment and cleaning up

Pick up with absorbent material (e.g. sand, sawdust, universal absorbent, diatomaceous earth).

Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use only in well-ventilated areas.

Provide suitable vacuuming at the processing machines.

Wash hands before breaks and after work.

Do not eat, drink or smoke when using this product.

Contaminated work clothing should not be allowed out of the workplace.

Use barrier skin cream.

Keep away from food and drink.

Take off contaminated clothing and wash before reuse.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.

Prevent penetration into the ground.

Keep away from water.

Do not store together with oxidizing agents.

Do not store together with food and animal food/diet.

Keep container tightly closed.

Keep container in a well-ventilated place.

Protect from atmospheric moisture and water.

Store in a dry place.

Do not keep at temperatures above 50 °C.

Keep away from frost.

Recommended storage temperature: 15 - 25 °C

7.3 Specific end use(s)

See product use, SECTION 1.2

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (GB)

Substance
Diphenylmethanediisocyanate, isomeres and homologues
CAS: 9016-87-9
Long-term exposure: 0,02 mg/m ³ , as NCO, Sen
Short-term exposure (15-minute): 0,07 mg/m ³

Ramsauer GmbH & Co KG

4822 Bad Goisern / H.

Date printed 28.02.2017, Revision 28.02.2017

Version 01

Page 5 / 11

8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation. Use suitable exhaust ventilation. Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.
Eye protection	safety glasses (EN 166:2001)
Hand protection	The details concerned are recommendations. Please contact the glove supplier for further information. 0,7 mm Butyl rubber, >480 min (EN 374-1/-2/-3). 0,7 mm Nitrile rubber, >480 min (EN 374-1/-2/-3). 0,7 mm Polychloroprene, >480 min (EN 374-1/-2/-3).
Skin protection	Protective clothing.
Other	Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier. Do not breathe vapour/spray. Avoid contact with eyes and skin.
Respiratory protection	Breathing apparatus in the event of high concentrations. Short term: filter apparatus, combination filter A-P2. (DIN EN 14387)
Thermal hazards	No information available.
Delimitation and monitoring of the environmental exposition	Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Form	pasty
Color	various
Odor	characteristic
Odour threshold	not determined
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	not determined
Flash point [°C]	not determined
Flammability (solid, gas) [°C]	not applicable
Lower explosion limit	not determined
Upper explosion limit	not determined
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	not determined
Density [g/ml]	~1,6 (20°C)
Bulk density [kg/m³]	not applicable
Solubility in water	insoluble reacts with water
Partition coefficient [n-octanol/water]	not determined
Viscosity	not determined
Relative vapour density determined in air	not determined
Evaporation speed	not determined
Melting point [°C]	not determined
Autoignition temperature [°C]	not determined
Decomposition temperature [°C]	not determined

9.2 Other information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Reactions with water, with formation of carbon dioxide.

Reactions with alcohols.

Reactions with amines.

Development of pressure and risk of bursting in closed containers.

(200°C) Risk of polymerisation.

10.4 Conditions to avoid

Strong heating.

Water.

10.5 Incompatible materials

See SECTION 10.3.

10.6 Hazardous decomposition products

In the event of fire: See SECTION 5.

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity**

Product
dermal, Based on the available information, the classification criteria are not fulfilled.:
oral, Based on the available information, the classification criteria are not fulfilled.:
ATE-mix, inhalative, > 20 mg/l (4 h).
Substance
Diphenylmethanediisocyanate, isomeres and homologues, CAS: 9016-87-9
LD50, dermal, Rabbit: > 9400 mg/kg (OECD 402).
LD50, oral, Rat: > 10000 mg/kg (OECD 401).
LC50, inhalativ (mist), Rat: 0,31 mg/l/4h (OECD 403).
NOAEL, inhalative, Rat: 0,2 mg/m ³ (OECD 453).
LOAEL, inhalative, Rat: 1 mg/m ³ (OECD 453).

Serious eye damage/irritation	Based on the available information, the classification criteria are fulfilled. Toxicological data of complete product are not available. Irritant Calculation method
Skin corrosion/irritation	Based on the available information, the classification criteria are fulfilled. Toxicological data of complete product are not available. Irritant Calculation method
Respiratory or skin sensitisation	Based on the available information, the classification criteria are fulfilled. Toxicological data of complete product are not available. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Calculation method
Specific target organ toxicity — single exposure	Based on the available information, the classification criteria are fulfilled. Toxicological data of complete product are not available. May cause respiratory irritation. Calculation method
Specific target organ toxicity — repeated exposure	Based on the available information, the classification criteria are fulfilled. Toxicological data of complete product are not available. May cause damage to lung through prolonged or repeated exposure through inhale. Calculation method
Mutagenicity	Based on available data, the classification criteria are not met. Does not contain a relevant substance that meets the classification criteria.
Reproduction toxicity	Based on available data, the classification criteria are not met. Does not contain a relevant substance that meets the classification criteria.
Carcinogenicity	Based on the available information, the classification criteria are fulfilled. Toxicological data of complete product are not available. Suspected of causing cancer. Calculation method
Aspiration hazard	Based on available data, the classification criteria are not met. Does not contain a relevant substance that meets the classification criteria.
General remarks	

The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

Ramsauer GmbH & Co KG

4822 Bad Goisern / H.

Date printed 28.02.2017, Revision 28.02.2017

Version 01

Page 8 / 11

SECTION 12: Ecological information**12.1 Toxicity**

Substance
Diphenylmethanediisocyanate, isomeres and homologues, CAS: 9016-87-9
LC50, (96h), Danio rerio: > 1000 mg/l (OECD 203).
EC50, (3h), Bacteria: > 100 mg/l (OECD 209).
EC50, (24h), Daphnia magna: > 1000 mg/l (OECD 202).
NOEC, (21d), Daphnia magna: > 10 mg/l (OECD 202).
ErC50, (72h), Scenedesmus subspicatus: > 1640 mg/l (OECD 201).

12.2 Persistence and degradability

Behaviour in environment compartments	not determined
Behaviour in sewage plant	not determined
Biological degradability	The product is not biodegradable.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

12.6 Other adverse effects

Ecological data of complete product are not available.

The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

Do not discharge product unmonitored into the environment or into the drainage.

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

Dispose of as hazardous waste.
Coordinate disposal with the authorities if necessary.

Waste no. (recommended)

080501*

Contaminated packaging

Uncontaminated packaging may be taken for recycling.
Packaging that cannot be cleaned should be disposed of as for product.

Waste no. (recommended)

150110*

Ramsauer GmbH & Co KG

4822 Bad Goisern / H.

Date printed 28.02.2017, Revision 28.02.2017

Version 01

Page 9 / 11

SECTION 14: Transport information**14.1 UN number**

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

14.2 UN proper shipping name

Transport by land according to ADR/RID NO DANGEROUS GOODS

Inland navigation (ADN) NO DANGEROUS GOODS

Marine transport in accordance with IMDG NOT CLASSIFIED AS "DANGEROUS GOODS"

Air transport in accordance with IATA NOT CLASSIFIED AS "DANGEROUS GOODS"

14.3 Transport hazard class(es)

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

14.4 Packing group

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

Ramsauer GmbH & Co KG

4822 Bad Goisern / H.

Date printed 28.02.2017, Revision 28.02.2017

Version 01

Page 10 / 11

14.5 Environmental hazards

Transport by land according to ADR/RID no

Inland navigation (ADN) no

Marine transport in accordance with IMDG no

Air transport in accordance with IATA no

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

not applicable

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

EEC-REGULATIONS 1991/689 (2001/118); 2010/75; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2008/47/EC); 453/2010/EC; (EU) 2015/830; (EU) 2016/131

TRANSPORT-REGULATIONS DOT-Classification, ADR (2017); IMDG-Code (2017, 38. Amdt.); IATA-DGR (2017).

NATIONAL REGULATIONS (GB): EH40/2005 Workplace exposure limits (Second edition, published December 2011). CHIP 3/ CHIP 4

- Observe employment restrictions for people Observe employment restrictions for young people.
Observe employment restrictions for mothers-to-be and nursing mothers.

- VOC (2010/75/CE) 0 %

15.2 Chemical safety assessment

not applicable

SECTION 16: Other information**16.1 Hazard statements (SECTION 03)**H411 Toxic to aquatic life with long lasting effects.
H373 May cause damage to organs through prolonged or repeated exposure through inhalation.
H351 Suspected of causing cancer.
H335 May cause respiratory irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H332 Harmful if inhaled.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H315 Causes skin irritation.

Ramsauer GmbH & Co KG

4822 Bad Goisern / H.

Date printed 28.02.2017, Revision 28.02.2017

Version 01

Page 11 / 11

16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
 RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
 ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
 CAS = Chemical Abstracts Service
 CLP = Classification, Labelling and Packaging
 DMEL = Derived Minimum Effect Level
 DNEL = Derived No Effect Level
 EC50 = Median effective concentration
 ECB = European Chemicals Bureau
 EEC = European Economic Community
 EINECS = European Inventory of Existing Commercial Chemical Substances
 ELINCS = European List of Notified Chemical Substances
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
 IC50 = Inhibition concentration, 50%
 IMDG = International Maritime Code for Dangerous Goods
 IUCLID = International Uniform Chemical Information Database
 LC50 = Lethal concentration, 50%
 LD50 = Median lethal dose
 MARPOL = International Convention for the Prevention of Marine Pollution from Ships
 PBT = Persistent, Bioaccumulative and Toxic substance
 PNEC = Predicted No-Effect Concentration
 REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
 TLV®/TWA = Threshold limit value – time-weighted average
 TLV®/STEL = Threshold limit value – short-time exposure limit
 VOC = Volatile Organic Compounds
 vPvB = very Persistent and very Bioaccumulative

16.3 Other information**Classification procedure**

Carc. 2: H351 Suspected of causing cancer. (Calculation method)
 STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure. (Calculation method)
 Eye Irrit. 2: H319 Causes serious eye irritation. (Calculation method)
 Skin Irrit. 2: H315 Causes skin irritation. (Calculation method)
 STOT SE 3: H335 May cause respiratory irritation. (Calculation method)
 Resp. Sens. 1: H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. (Calculation method)
 Skin Sens. 1: H317 May cause an allergic skin reaction. (Calculation method)
 Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects. (Calculation method)

Modified position

none

Copyright: Chemiebüro®