

Version number 9 Printing date 18.09.2015 Revision: 18.09.2015

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

- · 1.1 Product identifier
- · Trade name: CARDEA 2K ACRYLIC HARDENER
- · Article number: BB400Z2200
- · 1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

- · Application of the substance / the mixture Hardening agent/ Curing agent
- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Manufacturer: Kansai Altan Boya San. ve Tic. A.S.

Ankara Asfalti 25. Km.

TR-35730 Kemalpasa - Izmir

**TURKEY** 

infosds@kansaialtan.com.tr

- · Further information obtainable from: Material safety department
- · 1.4 Emergency telephone number:

During working hours: +90 232 870-1277

### SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Liq. 2 Highly flammable liquid and vapour.



#### GHS08 health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H304 Asp. Tox. 1 May be fatal if swallowed and enters airways.



#### GHS07

Acute Tox. 4 H332 Harmful if inhaled. Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xn; Harmful

R20/21-65: Harmful by inhalation and in contact with skin. Harmful: may cause lung damage if swallowed.



Xn; Sensitising

May cause sensitisation by inhalation and skin contact.

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Xi: Irritant

R37/38: Irritating to respiratory system and skin.

F; Highly flammable

R11: Highly flammable.

R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic

environment.

#### · Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

#### · 2.2 Label elements

#### · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms







GHS02 GHS07 GHS0

· Signal word Danger

#### Hazard-determining components of labelling:

xvlene

Hexamethylene -1,6-diisocyanate, homopolymer

Hydrocarbons, C9 aromatics hexamethylene-di-isocyanate

#### · Hazard statements

H225 Highly flammable liquid and vapour.

H332 Harmful if inhaled. H315 Causes skin irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

H304 May be fatal if swallowed and enters airways.H412 Harmful to aquatic life with long lasting effects.

#### · Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

water/shower.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

#### · Additional information:

EUH204 Contains isocyanates. May produce an allergic reaction.

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- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

#### SECTION 3: Composition/information on ingredients

- · 3.2 Chemical characterisation: Mixtures
- · Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:		
CAS: 1330-20-7 EINECS: 215-535-7 Index number: 601-022-00-9 Reg.nr.: 01-2119488216-32	xylene  Xn R20/21; Xi R38  R10  → Flam. Liq. 3, H226; → Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	25-50%
CAS: 28182-81-2 NLP: 500-060-2	Hexamethylene -1,6-diisocyanate, homopolymer  Xn R20; X Xi R37; X Xi R43  ↑ Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335	25-50%
EC number: 918-668-5 Reg.nr.: 01-2119455851-35	Hydrocarbons, C9 aromatics  Xn R65; Xi R37; N R51/53  R10-66-67  → Flam. Liq. 3, H226; → Asp. Tox. 1, H304; → Aquatic Chronic 2, H411; → STOT SE 3, H335-H336	15-<20%
CAS: 123-86-4 EINECS: 204-658-1 Index number: 607-025-00-1 Reg.nr.: 01-2119485493-29	n-butyl acetate R10-66-67 <b>(1)</b> Flam. Liq. 3, H226; <b>(1)</b> STOT SE 3, H336	10-<15%
CAS: 100-41-4 EINECS: 202-849-4 Index number: 601-023-00-4 Reg.nr.: 01-2119489370-35	ethylbenzene  Xn R20-48/20-65;  F R11  → Flam. Liq. 2, H225;  STOT RE 2, H373; Asp. Tox. 1, H304;  → Acute Tox. 4, H332	2,5-<109
CAS: 141-78-6 EINECS: 205-500-4 Index number: 607-022-00-5 Reg.nr.: 01-2119475103-46	ethyl acetate Xi R36;	2,5-<109
CAS: 822-06-0 EINECS: 212-485-8 Index number: 615-011-00-1 Reg.nr.: 01-2119457571-37	hexamethylene-di-isocyanate  ☐ T R23;  Xn R42/43;  Xi R36/37/38  ☐ Acute Tox. 3, H331;  Resp. Sens. 1, H334;  Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	0,5-<1%

Additional information: For the wording of the listed risk phrases refer to section 16.

#### SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· After inhalation:

Supply fresh air and to be sure call for a doctor.

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*In case of unconsciousness place patient stably in side position for transportation.* 

- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: If symptoms persist consult doctor.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- · 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 agents: CO2, sand, extinguishing powder. Do not use water.
- · For safety reasons unsuitable extinguishing agents: Water with full jet
- 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- 5.3 Advice for firefighters
- · Protective equipment:

Mouth respiratory protective device.

Do not inhale explosion gases or combustion gases.

Wear fully protective suit.

# SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

· 6.2 Environmental precautions:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/surface or ground water.

· 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

#### SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage: 5 °C 40 °C
- · Requirements to be met by storerooms and receptacles: Store in a cool location.
- · Information about storage in one common storage facility: Not required.

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· Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

· 7.3 Specific end use(s) No further relevant information available.

#### SECTION 8: Exposure controls/personal protection

- · Additional information about design of technical facilities: No further data; see item 7.
- · 8.1 Control parameters
- · Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

1330-20-7 xylene				
IOELV	Short-term value: 442 mg/m³, 100 ppm Long-term value: 221 mg/m³, 50 ppm Skin			
100-41-	100-41-4 ethylbenzene			
IOELV	Short-term value: 884 mg/m³, 200 ppm Long-term value: 442 mg/m³, 100 ppm Skin			

- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

· Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

- · Recommended filter device for short term use: Combination filter A-P2
- · Protection of hands:



Protective gloves

Sensibilisation by the components in the glove materials is possible.

Check protective gloves prior to each use for their proper condition.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Use gloves resistant to chemical affects (EN 374) and having CE marking.

#### Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

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resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· For the permanent contact gloves made of the following materials are suitable:

Butyl rubber, BR

Fluorocarbon rubber (Viton)

· For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:

Neoprene gloves

- · As protection from splashes gloves made of the following materials are suitable: Nitrile rubber, NBR
- · Eye protection:



Tightly sealed goggles

- · Body protection: Use protective clothing that prevents direct contact to skin.
- · Protective suit antistatic.

SECTION 9: Ph	iysical and	l chemical	properties
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9.1 Information on basic physical at General Information	nd chemical properties
· Appearance:	
Form:	Fluid
Colour:	Colourless
· Odour:	Characteristic
· Odour threshold:	Not determined.
· pH-value:	Not determined.
Change in condition Melting point/Melting range: Boiling point/Boiling range:	Undetermined. 124°C
· Flash point:	11 °C (Closed cup)
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	370 °C
Decomposition temperature:	Not determined.
· Self-igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	1,1 Vol %
Upper:	7,5 Vol %
· Vapour pressure at 20 °C:	10,7 hPa
Density at 20 °C:	$0.94 \text{ g/cm}^3$
Relative density	Not determined.

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· Vapour density Lighter than air · Evaporation rate Not determined.

· Solubility in / Miscibility with

Partly soluble. water:

· Partition coefficient (n-octanol/water): Not determined.

Viscosity:

Not determined. Dynamic: Kinematic at 20 °C: 10 s (DIN 53211/4)

9.2 Other information No further relevant information available.

#### SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- · 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products: No dangerous decomposition products known.

### SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity

Harmful if inhaled

Harmful if				
· LD/LC50	· LD/LC50 values relevant for classification:			
1330-20-7 xylene				
Dermal	LD50	2000 mg/kg (rabbit)		
28182-81	2 Hexameth	ylene -1,6-diisocyanate, homopolymer		
Dermal	LD50	>2000 mg/kg (rat)		
Hydrocarb	ons, C9 ard	omatics		
Dermal	LD50	>3160 mg/kg (rabbit)		
Inhalative	LC50/96 h	(rat)		
123-86-4 n-butyl acetate				
Dermal	LD50	>5000 mg/kg (rabbit)		
Inhalative	LC50/96 h	>21,0 mg/l (rat)		
100-41-4 е	thylbenzene			
Dermal	LD50	17800 mg/kg (rabbit)		
141-78-6 e	141-78-6 ethyl acetate			
Dermal	LD50	>18000 mg/kg (rabbit)		
822-06-0 h	822-06-0 hexamethylene-di-isocyanate			
Dermal	LD50	593 mg/kg (rat)		
· Primary ir	ritant effect	1		

- · Skin corrosion/irritation

Causes skin irritation.

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- · Serious eye damage/irritation Based on available data, the classification criteria are not met.
- · Respiratory or skin sensitisation

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

- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · 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.
- · STOT-single exposure

May cause respiratory irritation. May cause drowsiness or dizziness.

- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard

May be fatal if swallowed and enters airways.

### SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- · 12.2 Persistence and degradability No further relevant information available.
- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- · Remark: Harmful to fish
- · Additional ecological information:
- · General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is not classified as dangerous for the environment, but contains substance(s) dangerous for the environment. See section 3 for details.

Harmful to aquatic organisms

- · 12.5 Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · **vPvB:** Not applicable.
- 12.6 Other adverse effects No further relevant information available.

### SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· European	· European waste catalogue			
15 00 00	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND			
	PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED			
15 01 00	packaging (including separately collected municipal packaging waste)			
15 01 10*	packaging containing residues of or contaminated by dangerous substances			
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- · Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.

14.1 UN-Number	
ADR, IMDG, IATA	UN1263
14.2 UN proper shipping name	
ADR	1263 PAINT, special provision 640D
IMDG, IATA	PAINT
14.3 Transport hazard class(es)	
ADR, IMDG, IATA	
Class	3 Flammable liquids.
Label	3
14.4 Packing group	
ADR, IMDG, IATA	II
14.5 Environmental hazards:	
Marine pollutant:	No
14.6 Special precautions for user	Warning: Flammable liquids.
Danger code (Kemler):	33
EMS Number:	F-E, <u>S-E</u>
14.7 Transport in bulk according to Anne	
Marpol and the IBC Code	Not applicable.
Transport/Additional information:	
ADR	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging: 30 ml
Turner and a management	Maximum net quantity per outer packaging: 500 ml
Transport category Tunnel restriction code	2 D/E
	D/E
IMDG	5L
Limited quantities (L $oldsymbol{Q}$ ) Excepted quantities (E $oldsymbol{Q}$ )	SL Code: E2
Excepted quantities (EQ)	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per inner packaging: 50 ml  Maximum net quantity per outer packaging: 500 ml

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#### SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · National regulations:
- · Information about limitation of use:

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

#### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Rel	levant	phrases
1101	cruiii	pin uses

H225	Highly	flammable	e liauid	and var	pour.

H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H331 Toxic if inhaled.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H373 May cause damage to the hearing organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

R10 Flammable.

R11 Highly flammable.

*R20 Harmful by inhalation.* 

R20/21 Harmful by inhalation and in contact with skin.

*R23 Toxic by inhalation.* 

R36 Irritating to eyes.

R36/37/38 Irritating to eyes, respiratory system and skin.

*R37 Irritating to respiratory system.* 

R38 Irritating to skin.

*R42/43* May cause sensitisation by inhalation and skin contact.

*R43 May cause sensitisation by skin contact.* 

R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

*R65 Harmful: may cause lung damage if swallowed.* 

*R66* Repeated exposure may cause skin dryness or cracking.

R67 Vapours may cause drowsiness and dizziness.

· Department issuing MSDS: Product safety department

· Contact: Ms. Sevde Seza Bozacioğlu

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#### · Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Flam. Liq. 3: Flammable liquids, Hazard Category 3

Acute Tox. 4: Acute toxicity, Hazard Category 4 Acute Tox. 3: Acute toxicity, Hazard Category 3

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

Asp. Tox. 1: Aspiration hazard, Hazard Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

\* Data compared to the previous version altered.

