



SAFETY DATA SHEET

BOSTIK KU 321

1. Identification of the substance/preparation and company/undertaking

Identification of the substance or preparation

Product name : BOSTIK KU 321

Code : 245373/4

Use of the substance/preparation : Adhesive. Acrylic. Water based.

Company/undertaking identification

Manufacturer : BOSTIK SA
Immeuble IRIS
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2. Composition/information on ingredients

Substance/preparation : Preparation

Nature of material : Adhesive.

Ingredient name	CAS number	%	EC number	Classification
carbonic acid, calcium salt (1:1)	471-34-1	20 - 50	207-439-9	Not classified.
naphtha (petroleum), hydrodesulfurized heavy A complex combination of hydrocarbons obtained from a catalytic hydrodesulfurization process. It consists of hydrocarbons having carbon numbers predominantly in the range of C7 through C12 and boiling in the range of approximately 90 °C to 230 °C (194 °F to 446 °F).	64742-82-1	1 - 5	265-185-4	R10 Xn; R65 R66, R67 N; R51/53
toluene	108-88-3	1 - 5	203-625-9	F; R11 Repr. Cat. 3; R63 Xn; R48/20, R65 Xi; R38 R67
2,2'-oxybisethanol	111-46-6	< 1	203-872-2	Xn; R22
See section 16 for the full text of the R-phrases declared above				

Occupational exposure limits, if available, are listed in section 8.

3. Hazards identification

The preparation is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification : Not classified.

See section 11 for more detailed information on health effects and symptoms.

4. First-aid measures

First-aid measures

Inhalation : Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Obtain medical attention if symptoms occur. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

- Ingestion** : Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Obtain medical attention if symptoms occur. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Obtain medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Eye contact** : Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

See section 11 for more detailed information on health effects and symptoms.

5. Fire-fighting measures

Extinguishing media

- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : No specific hazard.
- Hazardous thermal decomposition products** : These products are carbon oxides (CO, CO₂). Some metallic oxides.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

- Personal precautions** : Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment.
- Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
- Methods for cleaning up** : If emergency personnel are unavailable, contain spilt material. For small spills, add absorbent (soil may be used in the absence of other suitable materials), scoop up material and place in a sealable, liquid-proof container for disposal. For large spills, dyke spilt material or otherwise contain material to ensure runoff does not reach a waterway. Place spilt material in an appropriate container for disposal.

7. Handling and storage

- Handling** : Wash thoroughly after handling.
- Storage** : Keep container tightly closed. Keep container in a cool, well-ventilated area.
- Packaging materials**
- Recommended** : Use original container.

8. Exposure controls/personal protection

<u>Ingredient name</u>	<u>Occupational exposure limits</u>
carbonic acid, calcium salt (1:1)	ACGIH TLV (United States, 1/2006). Notes: The value is for total dust containing no asbestos and < 1% crystalline silica. TWA: 10 mg/m ³ 8 hour/hours. Form: All forms
toluene	ACGIH TLV (United States, 1/2006). Skin Notes: 1996 Adoption Refers to Appendix A -- Carcinogens. TWA: 188 mg/m ³ 8 hour/hours. Form: All forms TWA: 50 ppm 8 hour/hours. Form: All forms

Exposure controls

- Occupational exposure controls** : No special ventilation requirements. Good general ventilation should be sufficient to control airborne levels. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

- Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Eye protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.
- Skin protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

General information

Appearance

- Physical state** : Liquid. (Viscous liquid.)
- Colour** : Off-white.
- Odour** : Slight

Important health, safety and environmental information

- pH** : 6.5 to 7.5 [Neutral.]
- Boiling point** : 100°C (212°F)
- Melting point** : <0°C (32°F)
- Flash point** : The lowest known value is Closed cup: 4.85°C (40.7°F). (toluene)
- Explosion limits** : The greatest known range is Lower: 0.6% Upper: 7% (naphtha (petroleum), hydrodesulfurized heavy A complex combination of hydrocarbons obtained from a catalytic hydrodesulfurization process. It consists of hydrocarbons having carbon numbers predominantly in the range of C7 through C12 and boiling in the range of approximately 90 °C to 230 °C (194 °F to 446 °F).)
- Vapour pressure** : The highest known value is 1.5 kPa (11.3 mm Hg) (at 20°C) (naphtha (petroleum), hydrodesulfurized heavy A complex combination of hydrocarbons obtained from a catalytic hydrodesulfurization process. It consists of hydrocarbons having carbon numbers predominantly in the range of C7 through C12 and boiling in the range of approximately 90 °C to 230 °C (194 °F to 446 °F).).
- Relative density** : 1.35 g/cm³ (23°C / 73.4°F)
- Solubility** : Insoluble in cold water, hot water.
- Dispersibility properties** : Easily dispersed in cold water, hot water.
- Viscosity** : Kinematic (40C): The highest known value is 0.93 cSt (naphtha (petroleum), hydrodesulfurized heavy A complex combination of hydrocarbons obtained from a catalytic hydrodesulfurization process. It consists of hydrocarbons having carbon numbers predominantly in the range of C7 through C12 and boiling in the range of approximately 90 °C to 230 °C (194 °F to 446 °F).)
- Vapour density** : The highest known value is 3.66 (Air = 1) (2,2'-oxybisethanol). Weighted average: 2.43 (Air = 1)
- Evaporation rate (butyl acetate = 1)** : The highest known value is 2 (toluene) Weighted average: 0.84 compared with Butyl acetate.

Other information

Auto-ignition temperature : The lowest known value is >200°C (392°F) (naphtha (petroleum), hydrodesulfurized heavy A complex combination of hydrocarbons obtained from a catalytic hydrodesulfurization process. It consists of hydrocarbons having carbon numbers predominantly in the range of C7 through C12 and boiling in the range of approximately 90 °C to 230 °C (194 °F to 446 °F).).

10. Stability and reactivity

Stability : The product is stable.

11. Toxicological information

Potential acute health effects

Inhalation : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Eye contact : No known significant effects or critical hazards.

Acute toxicity

<u>Product/ingredient name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
carbonic acid, calcium salt (1:1)	LD50	6450 mg/kg	Oral	Rat
toluene	LD50	636 mg/kg	Oral	Rat
	LDLo	50 mg/kg	Oral	human
2,2'-oxybisethanol	LD50	12000 mg/kg	Oral	Rat
	LD50	12565 mg/kg	Oral	Rat
	LD50	4400 mg/kg	Oral	Rabbit
	LD50	11890 mg/kg	Dermal	Rabbit
	LDLo	0.75 mg/kg	Oral	human

Potential chronic health effects

<u>Ingredient name</u>	<u>Carcinogenic effects</u>	<u>Mutagenic effects</u>	<u>Developmental toxicity</u>	<u>Impairs fertility</u>
toluene	-	-	Repr. Cat. 3; R63	-

Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Inhalation : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.
Skin : No known significant effects or critical hazards.
Target organs : Contains material which causes damage to the following organs: kidneys, liver, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

12. Ecological information

Ecotoxicity data

<u>Ingredient name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
toluene	Daphnia magna (EC50)	48 hour/hours	6 mg/l
	Daphnia magna (EC50)	48 hour/hours	6.56 mg/l
	Oncorhynchus mykiss (EC50)	48 hour/hours	6.78 mg/l
	Oncorhynchus mykiss (LC50)	96 hour/hours	5.8 mg/l
	Oncorhynchus mykiss (LC50)	96 hour/hours	6.78 mg/l
	Pimephales promelas (LC50)	96 hour/hours	12.6 mg/l
2,2'-oxybisethanol	Pimephales promelas (LC50)	96 hour/hours	75200 mg/l

Other adverse effects : No known significant effects or critical hazards.

13. Disposal considerations

- Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
- Hazardous waste** : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

14. Transport information

International transport regulations

Regulatory information	UN number	Proper shipping name	Class	Packing group	Label	Additional information
ADR/RID Class	Not regulated.	-	-	-		-
ADNR Class	Not regulated.	-	-	-		-
IMDG Class	Not regulated.	-	-	-		-
IATA Class	Not regulated.	-	-	-		-

15. Regulatory information

EU regulations

- Risk phrases** : This product is not classified according to EU legislation.
- Product use** : Classification and labelling have been performed according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and the intended use.
- Consumer applications.

Other EU regulations

- Additional warning phrases** : Safety data sheet available for professional user on request.

16. Other information

- Full text of R-phrases referred to in sections 2 and 3 - Europe** : R11- Highly flammable.
R10- Flammable.
R63- Possible risk of harm to the unborn child.
R22- Harmful if swallowed.
R48/20- Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R65- Harmful: may cause lung damage if swallowed.
R38- Irritating to skin.
R66- Repeated exposure may cause skin dryness or cracking.
R67- Vapours may cause drowsiness and dizziness.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- Full text of classifications referred to in sections 2 and 3 - Europe** : F - Highly flammable
Repr. Cat.3 - Toxic to reproduction Category 3
Xn - Harmful
Xi - Irritant
N - Dangerous for the environment.

History

- Date of printing** : 11/06/2007.
- Validation date** : 11/06/2007.
- Date of previous issue** : No previous validation.
- Version** : 1

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein we cannot guarantee that these are the only hazards that exist.