

Safety Data Sheet

according to Regulation (EC) No 1907/2006

KOESTER VAP I 2000 "Zero VOC" B

Revision date: 08.05.2015

Product code: CT230b

Page 1 of 11

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

1.1. Product identifier

KOESTER VAP I 2000 "Zero VOC" B

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

Use of the substance/mixture

The product is intended for professional use.

Uses advised against

No identified use(s).

1.3. Details of the supplier of the safety data sheet

Company name:	KOESTER BAUCHEMIE AG	
Street:	Dieselstrasse 1 - 10	
Place:	D-26607 Aurich	
Telephone:	+49-4941-9709-0	Telefax: +49-4941-9709-40
e-mail (Contact person):	produktsicherheit@koester.eu	
Internet:	www.koester.eu	
Responsible Department:	Forschung & Entwicklung	

1.4. Emergency telephone number:

+49-551-19240 (24 h, Giftinformationszentrum Nord)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Corr. 1A

Serious eye damage/eye irritation: Eye Dam. 1

Respiratory or skin sensitisation: Skin Sens. 1

Aspiration hazard: Asp. Tox. 1

Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:

Harmful if swallowed.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

May be fatal if swallowed and enters airways.

Harmful to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

2-piperazin-1-ylethylamine

1,3-Cyclohexanbis(methylamine)

Salicylic acid

Polyoxypropylendiamin

Signal word: Danger

Pictograms:



Safety Data Sheet

according to Regulation (EC) No 1907/2006

KOESTER VAP I 2000 "Zero VOC" B

Revision date: 08.05.2015

Product code: CT230b

Page 2 of 11

Hazard statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H304	May be fatal if swallowed and enters airways.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash ... thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P330	Rinse mouth.
P331	Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P321	Specific treatment (see ... on this label).
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P352	Wash with plenty of water.
P363	Wash contaminated clothing before reuse.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310	Immediately call a POISON CENTER/doctor.
P321	Specific treatment (see ... on this label).
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P405	Store locked up.
P501	Dispose of contents/container to

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

amines.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

KOESTER VAP I 2000 "Zero VOC" B

Revision date: 08.05.2015

Product code: CT230b

Page 3 of 11

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
140-31-8	2-piperazin-1-ylethylamine			< 20 %
	205-411-0	612-105-00-4		
	Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, Skin Sens. 1, Aquatic Chronic 3; H312 H302 H314 H317 H412			
2579-20-6	1,3-Cyclohexanbis(methylamine)			< 15 %
	219-941-5			
	Acute Tox. 4, Acute Tox. 4, Skin Corr. 1A, Eye Dam. 1, Aquatic Chronic 3; H312 H302 H314 H318 H412			
69-72-7	Salicylic acid			< 10 %
	200-712-3			
	Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, STOT SE 3; H302 H315 H318 H335			
9046-10-0	Polyoxypropylendiamin			< 2 %
	Skin Corr. 1; H314			
108-46-3	1,3-benzenediol, resorcinol			< 1 %
	203-585-2	604-010-00-1		
	Acute Tox. 4, Eye Irrit. 2, Skin Irrit. 2, Aquatic Acute 1; H302 H319 H315 H400			
2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine			< 1 %
	220-666-8	612-067-00-9		
	Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, Skin Sens. 1, Aquatic Chronic 3; H312 H302 H314 H317 H412			
1477-55-0	1,3-Benzendimethanamin			< 1 %
	216-032-5			
	Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, Eye Dam. 1, Skin Sens. 1, Aquatic Chronic 3; H302 H314 H318 H317 H412			

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection! Move victim out of danger zone.

After inhalation

Provide fresh air. In case of breathing difficulties administer oxygen. Medical treatment necessary.

After contact with skin

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
Medical treatment necessary.

After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Hazards identification: Stomach perforation. Call a physician immediately. Do not allow a neutralisation agent to be drunk.

Caution if victim vomits: Risk of aspiration!

Safety Data Sheet

according to Regulation (EC) No 1907/2006

KOESTER VAP I 2000 "Zero VOC" B

Revision date: 08.05.2015

Product code: CT230b

Page 4 of 11

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

The product itself does not burn.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protective suit.

Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately.

Do not allow entering drains or surface water.

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

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Wear personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Further information on handling

No special handling instructions are necessary.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaust at critical locations.

Advice on storage compatibility

Do not store together with: acid.

Further information on storage conditions

Keep only in the original container in a cool, well-ventilated place. Keep container tightly closed.

7.3. Specific end use(s)**SECTION 8: Exposure controls/personal protection****8.1. Control parameters**

Safety Data Sheet

according to Regulation (EC) No 1907/2006

KOESTER VAP I 2000 "Zero VOC" B

Revision date: 08.05.2015

Product code: CT230b

Page 5 of 11

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
108-46-3	Resorcinol	10	46		TWA (8 h)	WEL
		20	92		STEL (15 min)	WEL

8.2. Exposure controls

Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. Work in well-ventilated zones or use proper respiratory protection.

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat or drink.

Eye/face protection

Tightly sealed safety glasses.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. Suitable material: NBR (Nitrile rubber). penetration time (maximum wearing period): 480 min. Breakthrough times and swelling properties of the material must be taken into consideration.

Skin protection

When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn.

Respiratory protection

Work in well-ventilated zones or use proper respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	transparent
Odour:	stinging

Changes in the physical state

Initial boiling point and boiling range:	> 200 °C
Flash point:	> 160 °C

Explosive properties

not explosive.

Oxidizing properties

Not oxidising.

Vapour pressure: (at 23 °C)	5 hPa
--------------------------------	-------

Density (at 23 °C):	1,05 g/cm ³
---------------------	------------------------

Viscosity / dynamic:	300 mPa·s
----------------------	-----------

SECTION 10: Stability and reactivity

10.1. Reactivity

No risks worthy of mention.

10.2. Chemical stability

No risks worthy of mention.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

KOESTER VAP I 2000 "Zero VOC" B

Revision date: 08.05.2015

Product code: CT230b

Page 6 of 11

10.3. Possibility of hazardous reactions

No risks worthy of mention.

10.4. Conditions to avoid

Keep cool. Protect from sunlight.

10.5. Incompatible materials

No risks worthy of mention.

10.6. Hazardous decomposition products

No risks worthy of mention.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Toxicokinetics, metabolism and distribution**

No information available.

Acute toxicity

Acute toxicity, dermal.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

KOESTER VAP I 2000 "Zero VOC" B

Revision date: 08.05.2015

Product code: CT230b

Page 7 of 11

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
140-31-8	2-piperazin-1-ylethylamine				
	oral	ATE 500 mg/kg			
	dermal	ATE 1100 mg/kg			
2579-20-6	1,3-Cyclohexanbis(methylamine)				
	oral	ATE 500 mg/kg			
	dermal	ATE 1100 mg/kg			
69-72-7	Salicylic acid				
	oral	LD50 891 mg/kg	Rat		
	dermal	LD50 10000 mg/kg	Rabbit		
108-46-3	1,3-benzenediol, resorcinol				
	oral	LD50 301 mg/kg	Rat		
	dermal	LD50 3360 mg/kg	Rabbit		
2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine				
	oral	LD50 1030 mg/kg	Rat		
	dermal	ATE 1100 mg/kg			
1477-55-0	1,3-Benzendimethanamin				
	oral	ATE 500 mg/kg			
	dermal	LD50 2000 mg/kg	Rat		
	inhalative (4 h) vapour	LC50 5,6 mg/l	Rat		
	inhalative aerosol	ATE 1,5 mg/l			

Irritation and corrosivity

after ingestion: Irritation and etching. Hazards identification: Stomach perforation.

Sensitising effects

May cause sensitization by skin contact.

Carcinogenic/mutagenic/toxic effects for reproduction

No information available.

Specific effects in experiment on an animal

No information available.

Additional information on tests

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

SECTION 12: Ecological information**12.1. Toxicity**

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. No information

Safety Data Sheet

according to Regulation (EC) No 1907/2006

KOESTER VAP I 2000 "Zero VOC" B

Revision date: 08.05.2015

Product code: CT230b

Page 8 of 11

available.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
140-31-8	2-piperazin-1-ylethylamine					
	Acute fish toxicity	LC50 368 mg/l	96 h	Leuciscus idus		
	Acute algae toxicity	ErC50 495 mg/l	72 h	Selenastrum capricornutum		
	Acute crustacea toxicity	EC50 32 mg/l	48 h	Daphnia magna		
2579-20-6	1,3-Cyclohexanbis(methylamine)					
	Acute fish toxicity	LC50 > 100 mg/l	96 h	Leuciscus idus (golden orfe)		
	Acute algae toxicity	ErC50 276 mg/l	72 h	Pseudokirchneriella subcapitata		
	Acute crustacea toxicity	EC50 29 mg/l	48 h	Daphnia magna		
69-72-7	Salicylic acid					
	Acute crustacea toxicity	EC50 870 mg/l	48 h	Daphnia magna		
108-46-3	1,3-benzenediol, resorcinol					
	Acute fish toxicity	LC50 31,6 mg/l	96 h	Leuciscus idus		
	Acute algae toxicity	ErC50 605 mg/l		Chlorella vulgaris		
	Acute crustacea toxicity	EC50 1,28 mg/l	48 h	Daphnia magna		
1477-55-0	1,3-Benzendimethanamin					
	Acute fish toxicity	LC50 75 mg/l	96 h	Leuciscus idus (golden orfe)		
	Acute algae toxicity	ErC50 12 mg/l	72 h	Scenedesmus subspicatus		
	Acute crustacea toxicity	EC50 15,2 mg/l	48 h	Daphnia magna		

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
140-31-8	2-piperazin-1-ylethylamine	-1,48
108-46-3	1,3-benzenediol, resorcinol	0,93
2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine	1,9

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

Further information

Do not allow to enter into surface water or drains. The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

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

Safety Data Sheet

according to Regulation (EC) No 1907/2006

KOESTER VAP I 2000 "Zero VOC" B

Revision date: 08.05.2015

Product code: CT230b

Page 9 of 11

Advice on disposal

Dispose of waste according to applicable legislation.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information**Land transport (ADR/RID)**

14.1. UN number:	UN2735
14.2. UN proper shipping name:	AMINES, LIQUID, CORROSIVE, N.O.S. (Polyoxypropylendiamin 1,3-Benzendimethanamin)
14.3. Transport hazard class(es):	8
14.4. Packing group:	II
Hazard label:	8



Classification code:	C7
Special Provisions:	274
Limited quantity:	1 L
Transport category:	2
Hazard No:	80
Tunnel restriction code:	E

Other applicable information (land transport)E1
E2**Inland waterways transport (ADN)**

14.1. UN number:	UN2735
14.2. UN proper shipping name:	AMINES, LIQUID, CORROSIVE, N.O.S. (Polyoxypropylendiamin 1,3-Benzendimethanamin)
14.3. Transport hazard class(es):	8
14.4. Packing group:	II
Hazard label:	8



Classification code:	C7
Special Provisions:	274
Limited quantity:	1 L

Other applicable information (inland waterways transport)E1
E2**Marine transport (IMDG)**

14.1. UN number:	UN2735
14.2. UN proper shipping name:	AMINES, LIQUID, CORROSIVE, N.O.S. (Polyoxypropylendiamin 1,3-Benzendimethanamin)
14.3. Transport hazard class(es):	8
14.4. Packing group:	II

Safety Data Sheet

according to Regulation (EC) No 1907/2006

KOESTER VAP I 2000 "Zero VOC" B

Revision date: 08.05.2015

Product code: CT230b

Page 10 of 11

Hazard label: 8



Special Provisions: 274
 Limited quantity: 1 L
 EmS: F-A, S-B

Other applicable information (marine transport)

E1
 E2

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN2735
14.2. UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S.
14.3. Transport hazard class(es): 8
14.4. Packing group: II
 Hazard label: 8



Special Provisions: A3 A803
 Limited quantity Passenger: 0.5 L
 IATA-packing instructions - Passenger: 851
 IATA-max. quantity - Passenger: 1 L
 IATA-packing instructions - Cargo: 855
 IATA-max. quantity - Cargo: 30 L

Other applicable information (air transport)

E1
 Passenger-LQ: Y841
 E2
 Passenger-LQ: Y840

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes



SECTION 15: Regulatory information

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

EU regulatory information

2004/42/EC (VOC): < 1 % (< 10 g/l)

National regulatory information

Water contaminating class (D): 2 - clearly water contaminating

SECTION 16: Other information

Relevant H and EUH statements (number and full text)

H302 Harmful if swallowed.
 H304 May be fatal if swallowed and enters airways.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

KOESTER VAP I 2000 "Zero VOC" B

Revision date: 08.05.2015

Product code: CT230b

Page 11 of 11

H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)