

## Safety Data Sheet

Material Name: **KOSTER VAP I<sup>®</sup> 2000 ZERO VOC Part A**

### \*\*\* Section 1 – Chemical Product and Company Identification \*\*\*

#### 1.1 Product Identifier

KOSTER VAP I 2000 ZERO VOC A

#### 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: KOSTER American Corporation

Street: 2585 Aviator Drive

Place: Virginia Beach, VA 23453

Phone: 757-425-1206

Email: [info@kosterusa.com](mailto:info@kosterusa.com)

Internet: [www.kosterusa.com](http://www.kosterusa.com)

1.4 Emergency Telephone Number: INFOTRAC 800-535-5053

**Section 1 Notes:** Emergency telephone numbers are to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to customer service.

### \*\*\* Section 2 – Hazards Identification \*\*\*

#### 2.1. Classification of the substance or mixture

Indications of danger: Xi - Irritant, N - Dangerous for the environment

R phrases:

Irritating to eyes and skin.

May cause sensitization by skin contact.

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

#### GHS classification

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Respiratory/skin sensitization: Skin Sens. 1

Hazardous to the aquatic environment: Aquatic Chronic 2

Hazard Statements:

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

Toxic to aquatic life with long lasting effects.

#### 2.2. Label elements

Hazardous components which must be listed on the label

epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)

Bisphenol-F (Epoxy Resin) (MW < 700)

Signal word: Warning

Pictograms: GHS07-GHS09



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### Hazard statements

- H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H317 May cause an allergic skin reaction.  
H411 Toxic to aquatic life with long lasting effects.

### Precautionary statements

- P261 Avoid breathing dust/fume/gas/mist/vapors/spray.  
P264 Wash hands and skin thoroughly after handling.  
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.  
P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P321 Specific treatment (see warning on this label).  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P362 Take off contaminated clothing and wash before reuse.  
P363 Wash contaminated clothing before reuse.  
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.  
P391 Collect spillage.  
P501 Dispose of contents/container IAW local, state, or federal regulations.

### Special labeling of certain mixtures

EUH205 Contains epoxy constituents. May produce an allergic reaction.

## \*\*\* Section 3 – Composition/information on ingredients \*\*\*

### 3.2. Mixtures

#### Chemical characterization

Contains epoxy constituents with an average molecular weight of 700.

#### Hazardous components

EC No	Chemical Name	Quantity
CAS No	Classification	
Index No	GHS Classification	
Reach No		
500-033-5	Epoxy resin (number average molecular weight <=700), reaction product	<90%
25068-38-6	Xi – Irritant, N- Dangerous for the environment R36/38-43-51-53	
603-074-00-8	Eye irrit. 2, Skin Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H319 H315 H317 H411	
	Bisphenol-F-(Epoxy Resin) (MW <700)	<15%
9003-36-5	Xi – Irritant, N – Dangerous for the environment R36/38-43-51-53	
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H319 H317 H411	

Full text of R and H phrases: see Section 16

## \*\*\* Section 4 – First Aid Measures \*\*\*

### 4.1. Description of first aid measures

**General information:** First aid assistant: Pay attention to self-protection!

**After inhalation:** Provide fresh air. Move victim to fresh air. Put victim at rest and keep warm. In case of irregular breathing or respiratory arrest provide artificial respiration. No mouth-to-mouth or mouth-to-nose resuscitation. Use respiratory bag or oxygen resuscitation apparatus. In case of unconsciousness place in unconscious position and seek medical advice.

**After contact with skin:** Wash with generous amount of water. Change contaminated clothing.

**After contact with eyes:** Rinse immediately carefully and thoroughly with eye-bath or water. Medical advice absolutely required!

**After ingestion:** Rinse mouth immediately and drink large quantities of water. Remove casualty to fresh air and keep warm and at rest. Rinse mouth thoroughly with water. Let water be swallowed in little sips (dilution effect). Caution if victim vomits: Risk of aspiration! In case of unconsciousness place in unconscious position and seek medical advice.

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### \*\*\* Section 5 – Fire Fighting Measures \*\*\*

#### **5.1. Extinguishing media**

**Suitable extinguishing media:** Extinguishing materials should be selected according to the surrounding area.

**Extinguishing media which must not be used for safety reasons:** High power water jet.

#### **5.2. Special hazards arising from the substance or mixture**

The product itself is not combustible.

#### **5.3. Advice for firefighters:**

In case of fire: Wear self-contained breathing apparatus. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

**Additional information:** 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**

Guide people to safety. Wear chemical resistant suit. Do not breathe gas/vapor.

#### **6.2. Environmental precautions**

Do not empty into drains or the aquatic environment. In case of gas being released or leakage into waters, ground or the drainage system, the appropriate authorities must be informed.

#### **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 assimilated material according to the section on waste disposal.

### \*\*\* Section 7 – Handling and Storage \*\*\*

#### **7.1. Precautions for safe handling**

##### **Advice on safe handling**

Do not eat, drink, smoke or sneeze at the workplace. Avoid release to the environment. Keep only in the original container in a cool, well-ventilated place. Do not breathe gas/fumes/vapor/spray. People who suffer from skins problems, asthma, allergies, chronic or recurring respiratory illnesses must not be deployed in processes, which use this substance. Avoid release to the environment.

##### **Advice on protection against fire and explosion**

Usual measures for fire prevention.

##### **Further information on handling**

Do not eat, drink, smoke or sneeze at the workplace. Avoid release to the environment. Keep only in the original container in a cool, well-ventilated place. Do not breathe gas/fumes/vapor/spray. Avoid release to the environment. Keep container tightly closed.

#### **7.2. Conditions for safe storage, including any incompatibilities**

##### **Requirements for storage rooms and vessels**

Keep container tightly closed. Keep only in the original container in a cool, well-ventilated place. Keep away from food, drink and animal feeding stuffs. Protect from sunlight.

### \*\*\* Section 8 – Exposure Controls / Personal Protection \*\*\*

#### **8.1. Control parameters**

#### **8.2. Exposure controls**

##### **Occupational exposure controls**

If suction of the immediate vicinity is impossible or insufficient, the entire working place must be sufficiently ventilated using appropriate machines. If technical suction or ventilation measures are not possible or are insufficient, protective breathing apparatus must be worn.

##### **Protective and hygiene measures**

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

##### **Respiratory protection**

If technical suction or ventilation measures are not possible or are insufficient, protective breathing apparatus must be worn. Only use OSHA/NIOSH approved breathing apparatus.

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### Hand protection

When handling chemical substances, chemical protective gloves must be worn with CE label including a four digit code. Suitable material: NBR (Nitrile rubber). PVC (Polyvinyl chloride). Butyl rubber. Breakthrough times and swelling characteristics of the material must be taken into consideration.

### Eye protection

Tightly sealed safety glasses.

### Skin protection

When handling chemical substances, chemical protective clothing must be worn. Only wear fitting, comfortable and clean protective clothing.

## \*\*\* Section 9 – Physical & Chemical Properties \*\*\*

### 9.1. Information on basic physical and chemical properties

**Physical State:** Liquid

**Color:** Transparent

**Odor:** Characteristic

**Changes in the physical state:**

**Boiling Point:** >392°F / >200°C

**Flash Point:** >320°F / >160°C

**Explosive Properties:** Not explosive

**Oxidizing Properties:** Not oxidizing

**Vapor Pressure:** 0.000075 (mm Hg) @ 73.4°F / 0.0001 hPa @ 23°C

**Density:** 9.17 lb/gal (1.1 g/cm<sup>3</sup>)

**Viscosity / dynamic:** <1000 mPa's @ 73.4°F / 23°C

## \*\*\* Section 10 – Stability & Reactivity \*\*\*

### 10.1. Reactivity

No risks worthy of mention.

### 10.2. Chemical stability

No risks worthy of mention.

### 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 \*\*\*

### Information on toxicological effects

**Toxicokinetics, metabolism and distribution:** No information available.

**Acute toxicity:** No information available.

CAS No	Chemical name	Exposure routes	Method	Dose	Species	Source
9003-36-5	Bisphenol-F (Epoxy Resin MW<700)	Oral	LD50	>23800 mg/kg	Rat	
		dermal	LD50	2000 mg/kg	Rabbit	

**Specific effects in experiment on an animal:** No information available.

**Irritation and corrosivity:** Irritating to eyes. After skin contact: irritant.

**Sensitizing effects:** May cause sensitization by skin contact.

**Severe effects after repeated or prolonged exposure:** May produce an allergic reaction.

**Carcinogenic/mutagenic/toxic effects for reproduction:** No information available.

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**\*\*\* Section 12 – Ecological Information \*\*\***

**12.1 Toxicity**

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

CAS No	Chemical Name	Aquatic Toxicity	Method	Dose	Hrs	Species
9003-36-5	Bisphenol F – (Epoxy Resin),	Acute fish toxicity	LC50	1.5-7.7 mg/l	96	Oncorhynchus mykiss
		Acute algae toxicity	ErC50	220 mg/l	96	
		Acute crustacea toxicity	EC50	1.1 – 3.6 mg/l	48	Daphnia magna

**12.2 Persistence and degradability:**

Product is not easily biodegradable.

**12.3 Bioaccumulative potential:**

On the basis of existing data about disposal/decomposition and bio-accumulation potential, long term environmental damage cannot be ruled out.

**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 empty into drains or the aquatic environment.

**\*\*\* Section 13 – Disposal Considerations \*\*\***

**13.1. Waste treatment methods**

**Advice on disposal**

Do not empty into drains or the aquatic environment. Waste disposal according to official state regulations.

**Contaminated packaging**

Cleaned containers may be recycled. Handle contaminated packaging in the same way as the substance itself.

**\*\*\* Section 14 – Transportation Information \*\*\***

**Land transport (ADR/RID)**

**14.1. UN number:**

UN3082

**14.2. UN proper shipping name:**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Epoxy Resin MW<700)

**14.3. Transport hazard class(es):**

9

**14.4. Packing group:**

III

Hazard label:

9

Classification code:

M6

Special Provisions:

274 335 601

Limited quantity:

5 L

Transport category:

3

Hazard No:

90

Tunnel restriction code:

E

**Other applicable information (land transport):** E1

**Inland waterways transport (ADN)**

**14.1. UN number:**

UN3082

**14.2. UN proper shipping name:**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Resin  
MW<700)

**14.3. Transport hazard class(es):**

9

**14.4. Packing group:**

III

Hazard label:

9

Classification code:

M6

Special Provisions:

274 335 601

Limited quantity:

5 L

**Other applicable information (inland waterways transport)** E1

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### Marine transport (IMDG)

**14.1. UN number:** UN3082  
**14.2. UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Resin MW <700)  
**14.3. Transport hazard class(es):** 9  
**14.4. Packing group:** III  
Hazard label: 9  
Special Provisions: 274, 335  
Limited quantity: 5 L  
EmS: F-A, S-F

**Other applicable information (marine transport)** E1

### Air transport (ICAO)

**14.1. UN number:** UN3082  
**14.2. UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Resin (<700 MW))  
**14.3. Transport hazard class(es):** 9  
**14.4. Packing group:** III  
Hazard label: 9  
Special Provisions: A97 A158  
Limited quantity Passenger: 30 kg G  
IATA-packing instructions - Passenger: 964  
IATA-max. quantity - Passenger: 450 L  
IATA-packing instructions - Cargo: 964  
IATA-max. quantity - Cargo: 450 L

**Other applicable information (air transport)**

E1  
Passenger-LQ: Y964

### 14.5. Environmental hazards

Dangerous for the environment: yes

## \*\*\* Section 15 – Regulatory Information \*\*\*

All raw materials are on the U.S. EPA TSCA Inventory list.

VOC 1% (1 g/L)

Check individual state and country requirements, as additional regulations may apply.

This product is not regulated as a Marine Pollutant / Environmentally Hazardous Substance (UN3082, Class 9) by US-DOT, but may be regulated as such in some countries.

## \*\*\* Section 16 – Other Information \*\*\*

### Full text of R phrases referred to under Sections 2 and 3

36/38 Irritating to eyes and skin.  
43 May cause sensitisation by skin contact.  
51 Toxic to aquatic organisms.  
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
53 May cause long-term adverse effects in the aquatic environment.

### Full text of H statements referred to under Sections 2 and 3

H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H411 Toxic to aquatic life with long lasting effects.

**DISCLAIMER:** Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty expresses or implied with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use.

It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for his particular use.

This is the end of SDS

## Safety Data Sheet

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### \*\*\* Section 1 – Chemical Product and Company Identification \*\*\*

#### 1.1 Product Identifier

KOSTER 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: KOSTER American Corporation  
Street: 2585 Aviator Drive  
Place: Virginia Beach, VA 23453  
Telephone: 757-425-1206  
e-mail: info@kosterusa.com  
Internet: www.kosterusa.com  
Emergency Response: INFOTRAC  
**1.4 Emergency Telephone Number:** 800-535-5053

### \*\*\* Section 2 – Hazards Identification \*\*\*

#### 2.1. Classification of the substance or mixture

Indications of danger: C - Corrosive, Xn - Harmful

R phrases:

Harmful if swallowed.

Causes severe burns.

May cause sensitization by skin contact.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

##### GHS Classification

Hazard categories:

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Corr. 1A

Serious eye damage/eye irritation: Eye Dam. 1

Respiratory/skin sensitization: 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

##### Hazardous components which must be listed on the label

2-piperazin-1-ylethylamine

1,3-Cyclohexanbis(methylamine)

Salicylic acid

Polyoxypropylendiamin

Signal word:

Danger

Pictograms:

GHS05 –GHS07 – GHS08



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### 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/vapors/spray.
- 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 or doctor/physician.
- P330 Rinse mouth.
- P331 Do NOT induce vomiting.
- P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P321 Specific treatment (see warning on this label).
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P352 Wash with plenty of soap and water.
- P363 Wash contaminated clothing before reuse.
- P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P310 Immediately call a POISON CENTER or doctor/physician.
- P321 Specific treatment (see warning 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 or doctor/physician.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P405 Store locked up.

**\*\*\* Section 3 – Composition/information on ingredients \*\*\***

### 3.2. Mixtures

Chemical characterization: amines

#### Hazardous Components

EC No	Chemical name	Quantity
CAS No	Classification	
Index No	GHS Classification	
Reach No		
205-411-0	2-piperazin-1-ylethylamine	<20%
140-31-8	C - Corrosive, Xn - Harmful R21/22-34-43-52-53	
612-105-00-4	Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, Skin Sens. 1, Aquatic Chronic 3; H312 H302 H314 H317 H412	
219-941-5	1,3-Cyclohexanbis(methylamine)	<15%
2579-20-6	C - Corrosive, Xn - Harmful R21/22-35-52-53	
	Acute Tox. 4, Acute Tox. 4, Skin Corr. 1A, Eye Dam. 1, Aquatic Chronic 3; H302 H312 H314 H318 H412	
200-712-3	Salicylic acid	<10%
69-72-7	Xn - Harmful, Xi - Irritant R22-37/38-41	
	Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, STOT SE 3; H302 H315 H318 H335	
	Polyoxypropylendiamin	<2%
9046-10-0	C - Corrosive, R34	
612-067-00-9	Skin Corr. 1; H314	



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203-585-2	1,3-benzenediol, resorcinol	<1%
108-46-3	C - Corrosive, Xn - Harmful R21/22-34-43-52-53	
604-010-00-1	Acute Tox. 4, Eye Irrit. 2, Skin Irrit. 2, Aquatic Acute 1; H302 H319 H315 H400	
220-666-8	3-aminomethyl-3,5,5-trimethylcyclohexylamine	<1%
2855-13-2	C - Corrosive, Xn - Harmful R21/22-34-43-52-53	
612-067-00-9	Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, Skin Sens. 1, Aquatic Chronic 3; H312 H302 H314 H317 H412	
216-032-5	1,3-Benzendimethanamin	<1%
1477-55-0	C - Corrosive, Xn - Harmful R20/22-35-43-52-53	
	Acute Tox. 3, Acute Tox. 4, Skin Corr. 1, Skin Sens. 1, Aquatic Chronic 3; H331 H302 H314 H317 H412	

Full text of R and H phrases: see Section 16

### \*\*\* Section 4 – First Aid Measures \*\*\*

#### **4.1. Description of first aid measures**

##### **General information**

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

##### **After inhalation**

Provide fresh air. In case of breathing difficulties administer oxygen. Seek medical treatment if necessary.

##### **After contact with skin:**

IF ON SKIN (or hair): Immediately remove all contaminated clothing. Rinse skin with water/shower. Seek medical treatment if 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. Consult an ophthalmologist.

##### **After ingestion:**

Rinse mouth immediately and drink large quantities of water. Do not induce vomiting. Hazards identification: Stomach perforation. Immediately get medical attention. Do not allow a neutralization agent to be drunk. Caution if victim vomits: Risk of aspiration!

### \*\*\* Section 5 – Fire Fighting Measures \*\*\*

#### **5.1. Extinguishing media**

##### **Suitable extinguishing media**

Extinguishing materials should be selected according to the surrounding area.

##### **Extinguishing media which must not be used for safety reasons**

High power water jet.

#### **5.2. Special hazards arising from the substance or mixture**

The product itself is not combustible.

#### **5.3. Advice for firefighters**

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

##### **Additional information**

Use a water spray jet to knock down vapors/gases/mists. 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/vapors/spray. Avoid contact with skin, eye and clothing. Wear personal protection equipment.

#### **6.2. Environmental precautions**

Do not empty into drains or the aquatic environment.

#### **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 assimilated material according to the section on waste disposal.

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### \*\*\* Section 7 – Handling and Storage \*\*\*

#### **7.1. Precautions for safe handling**

##### **Advice on safe handling**

In case of open handling equipment with built-in suction must be used. Do not breathe gas/fumes/vapor/spray. If suction of the immediate vicinity is impossible or insufficient, adequate airing of the working place must be ensured.

##### **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**

Keep container tightly closed. Keep locked up. Store in a place accessible only to authorized persons.

##### **Requirements for storage rooms and vessels**

Provide for sufficient ventilation and suction at critical points.

##### **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**

##### Exposure Limits

CAS No	Chemical Name	ml/m3	mg/m3	Category
108-46-3	Resorcinol	10	46	TWA (8h)
		20	92	STEL (15 min)

#### **8.2. Exposure controls**

##### **Occupational exposure controls**

In case of open handling equipment with built-in suction must be used. Do not breathe gas/fumes/vapor/spray. Work in well ventilated zones or use proper respiratory protection.

##### **Protective and hygiene measures**

Take off immediately all contaminated clothing. Protect skin by using skin protective cream. After work, wash hands and face.

When using do not eat or drink.

##### **Respiratory protection**

Work in well ventilated zones or use proper respiratory protection.

##### **Hand protection**

When handling chemical substances, OSHA/NIOSH approved chemical protective gloves must be worn.

Suitable material: NBR (Nitrile rubber). penetration time (maximum wearing period): 480 min. Breakthrough times and swelling characteristics of the material must be taken into consideration.

##### **Eye protection:**

Tightly sealed safety glasses.

##### **Skin protection:**

When handling chemical substances, chemical protective clothing must be worn.

### \*\*\* Section 9 – Physical & Chemical Properties \*\*\*

#### **9.1. Information on basic physical and chemical properties**

**Physical State:** Liquid

**Color:** Transparent

**Odor:** Pungent/Amine-like

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**Changes in the physical state**  
 Boiling Point: 392 °F (>200°C)  
 Flash Point: >320°F (>160°C)  
**Explosive properties:** Not explosive  
**Oxidizing Properties:** Not Oxidizing  
**Vapor Pressure:** 0.015 mmHg (5 hPa)  
**Density:** 1.05 g/cm<sup>3</sup>  
**Viscosity:** 300 cps @ 73.4° F (23° C)

**\*\*\* Section 10 – Stability & Reactivity \*\*\***

**10.1. Reactivity**

No risks worthy of mention.

**10.2. Chemical stability**

No risks worthy of mention.

**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.

CAS No	Chemical Name	Exposure routes	Method	Dose	Species	Source
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) vapor	LC50	4.6 mg/l	Rat	
		inhalative aerosol	ATE	0.5 mg/l		

**Specific effects in experiment on an animal:** No information available.

**Irritation and corrosivity:** after ingestion: Irritation and itching. Hazards identification: Stomach perforation.

**Sensitizing effects:** May cause sensitization by skin contact.

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**Carcinogenic/mutagenic/toxic effects for reproduction:** No information available.

**Additional information on tests:**

**\*\*\* Section 12 – Ecological Information \*\*\***

**12.1. Toxicity**

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

CAS No	Chemical Name	Method	Dose	Hr	Species
140-31-8	2-piperazin-1-ylethylamine				
	Acute fish toxicity	LC50	368 mg/l	96	Leuciscus idus
	Acute algae toxicity	ErC50	495 mg/l	72	Selenastrum capricornutum
	Acute crustacean toxicity	EC50	32 mg/l	48	Daphnia magna
2579-20-6	1,3-Cyclohexanbis(methylamine)				
	Acute fish toxicity	LC50	>100 mg/l	96	Leuciscus idus (golden orfe)
	Acute algae toxicity	ErC50	276 mg/l	72	Pseudokirchneriella subcapitata
	Acute crustacean toxicity	EC50	29 mg/l	48	Daphnia magna
69-72-7	Salicylic acid				
	Acute crustacea toxicity	EC50	870 mg/l	48	Daphnia magna
108-46-3	1,3-benzenediol, resorcinol				
	Acute fish toxicity	LC50	31.6 mg/l	96	Leuciscus idus
	Acute algae toxicity	ErC50	605 mg/l		Chlorella vulgaris
	Acute crustacea toxicity	EC50	1.28 mg/l	48	Daphnia magna
1477-55-0	1,3-Benzendimethanamin				
	Acute fish toxicity	LC50	75 mg/l	96	Leuciscus idus (golden orfe)
	Acute algae toxicity	ErC50	12 mg/l	72	Scenedesmus subspicatus
	Acute crustacea toxicity	EC50	15.2 mg/l	48	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 empty into drains or the aquatic environment.

**\*\*\* Section 13 – Disposal Considerations \*\*\***

**13.1. Waste treatment methods**

**Advice on disposal**

Waste disposal according to official state regulations.

**Contaminated packaging**

Cleaned containers may be recycled. Handle contaminated packaging in the same way as the substance itself.

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**\*\*\* Section 14 – Transportation Information \*\*\***

**Land transport (ADR/RID)**

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

**14.1. UN number:** UN2735  
**14.2. UN proper shipping name:** AMINES, LIQUID, CORROSIVE, N.O.S. (1,3-Cyclohexanbis(methylamine))  
**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

## Material Safety Data Sheet

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Passenger-LQ: Y841

E2

Passenger-LQ: Y840

### **14.5. Environmental hazards**

Dangerous for the environment: yes

### **\*\*\* Section 15 – Regulatory Information \*\*\***

All raw materials are on the U.S. EPA TSCA Inventory list.

### **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture (VOC) <1% (<10 g/L)**

### **\*\*\* Section 16 – Other Information \*\*\***

#### **Full text of R phrases referred to under Sections 2 and 3**

- 20/22 Harmful by inhalation and if swallowed.
- 21/22 Harmful in contact with skin and if swallowed.
- 22 Harmful if swallowed.
- 34 Causes burns.
- 35 Causes severe burns.
- 36/38 Irritating to eyes and skin.
- 37/38 Irritating to respiratory system and skin.
- 41 Risk of serious damage to eyes.
- 43 May cause sensitisation by skin contact.
- 50 Very toxic to aquatic organisms.
- 52 Harmful to aquatic organisms.
- 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- 53 May cause long-term adverse effects in the aquatic environment.

#### **Full text of H statements referred to under Sections 2 and 3**

- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- 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.
- H331 Toxic if inhaled.
- H335 May cause respiratory irritation.
- H400 Very toxic to aquatic life.
- H412 Harmful to aquatic life with long lasting effects.

**DISCLAIMER:** Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty expresses or implied with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use.

It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for his own particular use.

#### **MSDS History**

New MSDS Date: 5/21/2013

This is the end of MSDS