

Material Safety Data Sheet

Material Name: **Koester VAP I<sup>®</sup> 2000 Part A**

ID: KAC-001

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

**Product Use:** Epoxy resin

**Manufacturer Information**

Koester America Corp.  
2585 Aviator Drive  
Virginia Beach, VA 23453

Phone: 1-757-425-1206

Emergency # INFOTRAC: 1-800-535-5053

**General Comments**

**NOTE:** 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 – Composition / Information on Ingredients \*\*\***

CAS #	Component	Percent
25068-38-6	Bisphenol A – (epichlorohydrin), reaction product	60-78

**SECTION 2 NOTES:**

This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication). Nothing in this product is listed as a carcinogen by OSHA, NTP, IARC, or ACGIH.

**\*\*\* Section 3 – Hazards Identification \*\*\***

**Emergency Overview**

This product is a combustible, colorless, odorless liquid epoxy resin, used as half of a two part system. This product is irritating to the eyes and skin. This product may cause sensitization by skin contact. Excessive inhalation of this material causes headache, dizziness, nausea.

**Routes of Entry:**

**Eyes:** This product may cause eye irritation and moderate eye injury. Symptoms may include discomfort or pain, excess blinking and tear production with marked redness and swelling of the conjunctiva.

**Skin:** This product is irritating to the skin. This product may cause an allergic skin reaction in some individuals.

**Ingestion:** Ingestion of this product may cause nausea, vomiting and diarrhea.

**Inhalation:** This product is harmful by inhalation. Inhalation of vapors or mists of the product may be irritating to the respiratory system.

**HMIS Ratings: Health: 2 Fire: 1 Reactivity: 1**

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

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

**Eyes:** Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Remove contact lenses. Seek medical attention at once.

**Skin:** Remove all contaminated clothing. Wash affected area with mild soap and water. If irritation persists, get medical attention. Wash contaminated clothing before reuse.

**Ingestion:** If the material is swallowed, have victim drink water to dilute stomach contents, and get immediate medical attention or advice. DO NOT INDUCE VOMITING.

**Inhalation:** Remove victim to fresh air. Seek medical attention if symptoms persist.

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

**Flash Point:** >194° F (>90° C) **Method Used:** TAG

**Upper Flammable Limit (UFL):** Not available **Lower Flammable Limit (LFL):** Not available

**Auto Ignition:** Not available **Flammability Classification:** Combustible

**General Fire Hazards:** This product is combustible at high temperatures. This product may polymerize if heated above 200° F.

**Hazardous Combustion Products:** Carbon monoxide, carbon dioxide, hydrocarbon fragments.

**Extinguishing Media:** Water spray, dry chemical, carbon dioxide. Use water spray to cool fire-exposed containers.

**Fire Fighting Equipment/Instructions:** Wear full firefighting turn-out gear and positive pressure SCBA.

### \*\*\* Section 6 – Accidental Release Measures \*\*\*

Isolate area. Keep unnecessary personnel away. Dike large spills and prevent product from contaminating soil or from entering sewage and drainage systems and bodies of water.

Do not allow contact with skin, eyes or mucous membranes. Avoid inhalation of spilled material.

Wear appropriate protective equipment and clothing during clean up. Eliminate all ignition sources.

Absorb spills with inert material and transfer to closed container for proper disposal.

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

#### Handling and Storage:

Do not get this material in your eyes, on your skin, or on your clothing. Do not inhale vapors or mists of this product. Do not reuse the empty container. Use this product with adequate ventilation. Wash thoroughly after handling. Keep this product from heat, sparks, or open flame. Do not eat, drink or smoke when using this product.

Store only in the original container; store tightly closed in an upright position in a cool, dry, well-ventilated area.

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

**Engineering Controls:** If general mechanical ventilation is insufficient, use local exhaust, especially in enclosed work areas.

**Respiratory Protection:** If ventilation is not sufficient to effectively prevent buildup of vapors, provide appropriate NIOSH respiratory protection for organic vapors.

**Eye Protection:** Wear chemical splash goggles.

**Skin Protection:** Use impervious gloves (neoprene). Wear work clothing sufficient to prevent skin contact, such as coveralls and long sleeves.

**Other Protective Equipment:** Know the locations of eyewash fountains and emergency showers.

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

**Appearance:** Colorless

**Physical State:** Liquid

**Vapor Pressure:** Not available

**Boiling Point:** Not available

**Solubility (H<sub>2</sub>O):** Insoluble

**Viscosity:** 1100 mPas @ 73.4° F (23° C)

**Odor:** Odorless

**pH:** Not applicable

**Vapor Density:** Not available

**Melting Point:** Not available

**Specific Gravity:** Not available

**VOC:** <10 g/L

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

**Chemical Stability:** Stable under normal conditions.

**Conditions to Avoid:** Keep away from heat, ignition sources and incompatible materials. Avoid contact with caustic soda (sodium hydroxide) solution.

**Incompatibility:** This product may react with oxidizers, acids, bases, amines, phenols, mercaptans and anhydrides.

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**Hazardous Decomposition:** Upon decomposition, this product emits carbon monoxide, carbon dioxide, chlorine, hydrocarbon fragments.

**Hazardous Polymerization:** Hazardous polymerization can occur at temperatures >200° F.

### \*\*\* Section 11 – Toxicological Information \*\*\*

Product contains epoxy derivatives which may cause allergic skin sensitization in some individuals.

**Bisphenol A – (epichlorohydrin), reaction product:** LD50, oral, rat : >11,000 mg/kg; LD50, dermal, mouse : >15,000 mg/kg

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

#### Ecotoxicity

No data available for this product.

#### Environmental Fate

Slightly harmful to aquatic systems; keep liquid from entering sewers and natural waterways.

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

Comply with all local, state, and federal regulations when disposing of this product.

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

**U.S. DOT Information:** Not Regulated unless in containers >119 gallons, per 49 CFR 173.150(f)

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

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

**Component analysis:** Nothing in this product is subject to regulation under SARA 302, SARA 313, or CERCLA. The product may be subject to SARA 312 reporting, depending upon the purchaser's storage circumstances.

**Acute Health:** Yes **Chronic Health:** No **Fire:** No **Pressure:** No **Reactive:** No

Check individual state requirements, as additional regulations may apply.

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

#### Disclaimer:

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed 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.

#### MSDS History

New MSDS Date: 01/09/2009

Revision Update: 01/09/2009

This is the end of MSDS # KAC-001

## Material Safety Data Sheet

Material Name: **Koester VAP I<sup>®</sup> 2000 Part B**

ID: KAC-002

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

**Product Use:** Epoxy resin

**Manufacturer Information**

Koester America Corp.

2585 Aviator Drive

Virginia Beach, VA 23453

Phone: 1-757-425-1206

Emergency # INFOTRAC: 1-800-535-5053

**General Comments**

**NOTE:** 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 – Composition / Information on Ingredients \*\*\*

CAS #	Component	Percent
2855-13-2	Isophorone diamine	50-65
25068-38-6	Bisphenol A – (epichlorohydrin), reaction product	6-10

**SECTION 2 NOTES:**

This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

Nothing in this product is listed as a carcinogen by OSHA, NTP, IARC, or ACGIH.

### \*\*\* Section 3 – Hazards Identification \*\*\*

**Emergency Overview**

This product is a barely combustible, corrosive, colorless liquid epoxy resin with an amine-like odor, used as half of a two part system. This product is harmful if inhaled or ingested. Contact with this material will cause burns to the skin, eyes and mucous membranes. This product may cause sensitization by skin contact.

**Routes of Entry:**

**Eyes:** This product causes eye burns. Contact with the eyes may cause moderate to severe eye injury. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

**Skin:** This product is severely irritating to the skin and may cause burns. This product may cause an allergic skin reaction.

**Ingestion:** This product may be harmful if it is swallowed. Ingestion may cause nausea, vomiting and diarrhea. This product may produce corrosive damage to the gastrointestinal tract if it is swallowed.

**Inhalation:** This product is harmful by inhalation. Inhalation of vapors or mists of the product may be irritating to the respiratory system.

**HMIS Ratings: Health: 3 Fire: 1 Reactivity: 1**

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

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

**Eyes:** Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Remove contact lenses. SEEK MEDICAL ATTENTION AT ONCE.

**Skin:** Remove all contaminated clothing. Wash affected area with mild soap and water. If irritation persists, get medical attention. Wash contaminated clothing before reuse.

**Ingestion:** If the material is swallowed, get immediate medical attention or advice. DO NOT INDUCE VOMITING.

**Inhalation:** Remove to fresh air. Seek medical attention if symptoms persist.

## Material Safety Data Sheet

Material Name: **Koester VAP I<sup>®</sup> 2000 Part B**

ID: KAC-002

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

**Flash Point:** >194° F (>90° C)

**Upper Flammable Limit (UFL):** Not available

**Auto Ignition:** Not available

**Method Used:** TAG

**Lower Flammable Limit (LFL):** Not available

**Flammability Classification:** Combustible

**Hazardous Combustion Products:** Carbon monoxide, carbon dioxide, hydrocarbon fragments.

**Extinguishing Media:** Water spray, dry chemical, carbon dioxide. Use water spray to cool fire-exposed containers.

**Fire Fighting Equipment/Instructions:** Wear full firefighting turn-out gear and positive pressure SCBA.

### \*\*\* Section 6 – Accidental Release Measures \*\*\*

Isolate area. Dike large spills and prevent product from contaminating soil or from entering sewage and drainage systems and bodies of water.

Do not allow contact with skin, eyes or mucous membranes. Avoid inhalation of spilled material.

Wear appropriate protective equipment and clothing during clean up. Eliminate all ignition sources.

Absorb spills with inert material and transfer to closed container for proper disposal.

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

Do not get this material in your eyes, on your skin, or on your clothing. Do not inhale vapors or mists of this product. Do not reuse the empty container. Use this product with adequate ventilation. Wash thoroughly after handling. Keep this product from heat, sparks, or open flame. Do not eat, drink or smoke when using this product.

Store only in the original container; store tightly closed in an upright position in a cool, dry, well-ventilated area.

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

**Engineering Controls:** If general mechanical ventilation is insufficient, use local exhaust, especially in enclosed work areas.

**Respiratory Protection:** If ventilation is not sufficient to effectively prevent buildup of vapors, provide appropriate NIOSH respiratory protection for organic vapors.

**Eye Protection:** Wear chemical splash goggles.

**Skin Protection:** Use impervious gloves (neoprene). Wear work clothing sufficient to prevent skin contact, such as coveralls and long sleeves.

**Other Protective Equipment:** Know the locations of eyewash fountains and emergency showers.

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

**Appearance:** Colorless

**Physical State:** Liquid

**Vapor Pressure:** Not available

**Boiling Point:** Not available

**Solubility (H<sub>2</sub>O):** Insoluble

**Viscosity:** 800 mPas @ 73.4° F (23° C)

**Odor:** Amine-like

**pH:** >12

**Vapor Density:** Not available

**Melting Point:** Not available

**Specific Gravity:** 1.02 g/cm (Density)

**VOC:** <10 g/L

## Material Safety Data Sheet

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ID: KAC-002

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

**Chemical Stability:** Stable under normal conditions.

**Conditions to Avoid:** Keep away from heat, ignition sources and incompatible materials. Do not mix this product with nitrates or other nitrosating agents because a carcinogenic nitrosamine may be formed.

**Incompatibility:** This product may react with oxidizers, acids, bases, phenols, mercaptans, isocyanates and anhydrides.

**Hazardous Decomposition:** Upon decomposition, this product emits carbon monoxide, carbon dioxide, chlorine, hydrocarbon fragments.

**Hazardous Polymerization:** Will not occur.

### \*\*\* Section 11 – Toxicological Information \*\*\*

#### General Product Information

Product contains an amine, which may cause allergic skin sensitization in some individuals.

#### Bisphenol A – (epichlorohydrin), reaction product (25068-38-6)

LD50, oral, rat: >11,000 mg/kg

LD50, dermal, Rabbit : >15,000 mg/kg

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

**Ecotoxicity:** No data available for this product.

**Environmental Fate:** Slightly harmful to aquatic systems. Keep liquid from entering sewers and natural waterways.

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

Comply with all local, state, and federal regulations when disposing of this product. Waste product, as shipped, may be subject to RCRA regulations, waste code D002 (corrosive).

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

#### US DOT Information

**Shipping Name:** Polyamines, liquid, corrosive, n.o.s. (Isophoronediamine)

**Hazard Class:** 8

**UN/NA #:** UN 2735

**Packing Group:** II

**Required Label(s):** CORROSIVE

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

All raw materials are on the U.S. EPA TSCA Inventory list. **A: General Product Information**

**Component analysis:** Nothing in this product is subject to regulation under SARA 302, SARA 313, or CERCLA. The product may be subject to SARA 312 reporting, depending upon the purchaser's storage circumstances.

**Acute Health:** Yes **Chronic Health:** No **Fire:** No **Pressure:** No **Reactive:** No

Check individual state requirements, as additional regulations may apply.

**Material Safety Data Sheet**

**Material Name: Koester VAP I<sup>®</sup> 2000 Part B**

**ID: KAC-002**

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

**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: 01/09/2009

Revision Update: 01/09/2009

This is the end of MSDS # KAC-002