

Material Safety Data Sheet

Material Name: **KOSTER VAP I[®] 2000 Part A**

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

Product Use: Epoxy resin

Manufacturer Information

KOSTER America Corp.

Phone: 1-757-425-1206

2585 Aviator Drive

Virginia Beach, VA 23453

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	50-80
28064-14-4	Bisphenol F – (epichlorohydrin), reaction product	10-40

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 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.

Material Safety Data Sheet

Material Name: **KOSTER VAP I[®] 2000 Part A**

*** Section 5 – Fire Fighting Measures ***

Flash Point: 203° F (95° C) **Method Used:** TAG

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

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/MSHA 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 (H₂O): Insoluble

Viscosity: 800 mPas @ 73.4° F (23° C)

Odor: Odorless

pH: Not applicable

Vapor Density: Not available

Melting Point: Not available

Specific Gravity: 1.1

VOC: Not available

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

Chemical Stability: Stable under normal conditions.

Conditions to Avoid: Keep away from heat, ignition sources and incompatible materials.

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

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

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

Material Safety Data Sheet

Material Name: **KOSTER VAP I[®] 2000 Part A**

*** Section 11 – Toxicological Information ***

Product contains epoxy derivatives which may cause 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 ***

US DOT Information

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, NOS, (EPICHLORHYDRIN)

Hazard Class: 9

ID Number: UN 3082

Packing Group: III

Required Label(s): Miscellaneous

*** 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.

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 ***

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: 04/30/2007

Revision Update: 12/09/2010

This is the end of MSDS

Material Safety Data Sheet

Material Name: **KOSTER VAP I[®] 2000 Part B**

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

Product Use: Epoxy resin

Manufacturer Information

KOSTER 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
1477-55-0	1,3- Benzenedimethaneamine	15-35
2855-13-2	Isophorone diamine	10-20
15520-10-2	2-Methyl- 1,5- pentamethylenediamine	5-10

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 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: **KOSTER VAP I[®] 2000 Part B**

*** Section 5 – Fire Fighting Measures ***

Flash Point: >200° F (>93° C)

Upper Flammable Limit (UFL): Not available

Method Used: TAG

Lower Flammable Limit (LFL): Not available

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 (pre-mixed with boric acid, if possible) 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 (H₂O): Insoluble

Viscosity: 600 mPas @ 73.4° F (23° C)

Odor: Amine-like

pH: >12

Vapor Density: Not available

Melting Point: Not available

Density: 1.1 g/cm

VOC: Not available

*** 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.

Material Safety Data Sheet

Material Name: **KOSTER VAP I[®] 2000 Part B**

*** Section 11 – Toxicological Information ***

General Product Information

Product contains several amines, which may cause allergic skin sensitization in some individuals.

*** Section 12 – Ecological Information ***

Ecotoxicity: No data available for this product.

Environmental Fate: Toxic 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: Amines, liquid, corrosive, n.o.s. (1,3- Benzenedimethaneamine, 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.

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 and country 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 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: 04/30/2007

Revision Update: 02/17/2009

This is the end of MSDS # KAC-002