



<b>ASHLAND</b>		Page: 2 of 8
<b>SAFETY DATA SHEET</b>		Revision Date: 10.03.2009
		Print Date: 20.10.2010
DERAKANE® 8084 EPOXY VINYL ESTER RESIN		MSDS Number: R0402390 Version: 1.2

### Eyes

Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention. Remove contact lenses.

### Skin

Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water. If skin irritation persists, call a physician.

### Ingestion

Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

### Inhalation

Move to fresh air. Consult a physician after significant exposure. If symptoms persist, call a physician. In case of shortness of breath, give oxygen.

### Notes to physician

**Hazards:** This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See Section 2 - Swallowing) when deciding whether to induce vomiting.

## 5. FIRE-FIGHTING MEASURES

### Suitable extinguishing media

ABC powder, Water mist, Carbon dioxide (CO<sub>2</sub>), Dry chemical

### Unsuitable extinguishing media

**DO NOT USE:** Halons

### Hazardous combustion products

Hydrocarbons, carbon dioxide and carbon monoxide

### Thermal decomposition

no data available

### Precautions for fire-fighting

Do not use a solid water stream as it may scatter and spread fire. Do not allow run-off from fire fighting to enter drains or water courses. Keep containers and surroundings cool with water spray. Prevent fire extinguishing water from contaminating surface water or the ground water system. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments.

### Personal protective equipment

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

<b>ASHLAND</b>		Page: 3 of 8
<b>SAFETY DATA SHEET</b>		Revision Date: 10.03.2009
		Print Date: 20.10.2010
DERAKANE® 8084 EPOXY VINYL ESTER RESIN		MSDS Number: R0402390 Version: 1.2

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions

Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Ensure adequate ventilation. Pay attention to the spreading of gases especially at ground level (heavier than air) and to the direction of the wind.

### Environmental precautions

Prevent further leakage or spillage if safe to do so.

### Methods for cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

### Other information

Comply with all applicable federal, state, and local regulations.

## 7. HANDLING AND STORAGE

### Handling

Avoid formation of aerosol. Do not breathe vapours or spray mist. Avoid contact with skin and eyes. For personal protection see section 8. Provide sufficient air exchange and/or exhaust in work rooms. Avoid exceeding of the given occupational exposure limits (see section 8). Smoking, eating and drinking should be prohibited in the application area. Ensure all equipment is electrically grounded before beginning transfer operations. Take measures to prevent the build up of electrostatic charge. Preparation may charge electrostatically: always use earthing leads when transferring from one container to another. Keep product and empty container away from heat and sources of ignition. No sparking tools should be used.

### Storage

Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Stable under recommended storage conditions.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

<b>Styrene (CAS 100-42-5)</b>			
MAC (NL)	time weighted average	25 ppm	
MAC (NL)	time weighted average	107 mg/m <sup>3</sup>	

### General advice

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure

<b>ASHLAND</b>		Page: 4 of 8
<b>SAFETY DATA SHEET</b>		Revision Date: 10.03.2009
		Print Date: 20.10.2010
DERAKANE® 8084 EPOXY VINYL ESTER RESIN		MSDS Number: R0402390 Version: 1.2

potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities. Keep away from food, drink and animal feedingstuffs. When using do not eat, drink or smoke. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Exposure controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below level of overexposure (from known, suspected or apparent adverse effects).

#### Eye protection

Safety glasses with side-shields

#### Skin and body protection

Wear as appropriate:

Safety shoes

Flame-resistant clothing

Wear resistant gloves such as:

polyvinyl alcohol

#### Respiratory protection

In the case of vapour formation use a respirator with an approved filter.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state</b>	liquid
<b>Form</b>	no data available
<b>Colour</b>	no data available
<b>Odour</b>	pungent
<b>Boiling point/boiling range</b>	145.20 °C
<b>Melting point/range</b>	no data available
<b>pH</b>	no data available
<b>Flash point</b>	29.40 °C, ASTM D 56
<b>Evaporation rate</b>	no data available
<b>Lower explosion limit/Upper explosion limit</b>	1.1 %(V) / 6.1 %(V)
<b>Vapour pressure</b>	4.50 mmHg
<b>Vapour density</b>	(>) 1 (AIR=1)
<b>Density</b>	1.078 g/cm <sup>3</sup> @ 68 °F / 20 °C
<b>Solubility</b>	Water insoluble
<b>Partition coefficient: n-octanol/water</b>	no data available
<b>log Pow</b>	no data available
<b>Autoignition temperature</b>	no data available
<b>Viscosity, dynamic</b>	no data available
<b>Viscosity, kinematic</b>	no data available

<b>ASHLAND</b>		Page: 5 of 8
<b>SAFETY DATA SHEET</b>		Revision Date: 10.03.2009
		Print Date: 20.10.2010
DERAKANE® 8084 EPOXY VINYL ESTER RESIN		MSDS Number: R0402390 Version: 1.2

## 10. STABILITY AND REACTIVITY

### Stability

Stable under recommended storage conditions.

### Conditions to avoid

Heat, flames and sparks. Exposure to sunlight., Exposure to air.

### Incompatible products

Acids, Bases, aluminum, aluminum chloride, Copper, Copper alloys, halogens, iron chloride, metal salts, Peroxides, Strong oxidizing agents

### Hazardous decomposition products

Hydrocarbons, carbon dioxide and carbon monoxide

### Hazardous reactions

Hazardous polymerisation may occur. Vapours may form explosive mixture with air.

## 11. TOXICOLOGICAL INFORMATION

### Routes of exposure

Skin contact, Eye Contact, Ingestion, Inhalation

### Eye contact

Causes eye irritation.

### Skin contact

Causes skin irritation.

### Ingestion

Not known to be harmful if swallowed.

### Inhalation

Harmful by inhalation.

### Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: Upper respiratory tract, Skin, lung (for example, asthma-like conditions), Liver, Central nervous system, male reproductive system, auditory system

### Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation

<b>ASHLAND</b>		Page: 6 of 8
<b>SAFETY DATA SHEET</b>		Revision Date: 10.03.2009
		Print Date: 20.10.2010
DERAKANE® 8084 EPOXY VINYL ESTER RESIN		MSDS Number: R0402390 Version: 1.2

(nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, Lack of coordination, confusion, liver damage

### Target Organs

Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: liver damage, Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: mild effects on color vision, effects on hearing, respiratory tract damage (nose, throat, and airways), central nervous system effects

### Component data

#### Acute oral toxicity

Styrene LD 50 Rat: 2,650 mg/kg

#### Acute inhalation toxicity

Styrene LC 50 Rat: 2800 ppm, 4 h

#### Acute dermal toxicity

Styrene no data available

## 12. ECOLOGICAL INFORMATION

### Product information

#### Aquatic toxicity

no data available

### Environmental fate and pathways

#### Biodegradation

no data available

#### Bioaccumulation

The bioaccumulation potential cannot be determined.

## 13. DISPOSAL CONSIDERATIONS

### Waste disposal methods

Dispose of in accordance with the European Directives on waste and hazardous waste. Do not contaminate ponds, waterways or ditches with chemical or used container. Container hazardous when empty. Dispose of in accordance with local regulations.

### Empty packaging

<b>ASHLAND</b>		Page: 7 of 8
<b>SAFETY DATA SHEET</b>		Revision Date: 10.03.2009
		Print Date: 20.10.2010
DERAKANE® 8084 EPOXY VINYL ESTER RESIN		MSDS Number: R0402390 Version: 1.2

Empty remaining contents. Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

### European Waste Catalogue

The Waste code should be assigned in discussion between the user and the waste disposal company.

## 14. TRANSPORT INFORMATION

### ADR

UN 1866 RESIN SOLUTION 3 III

### ADNR

UN 1866 RESIN SOLUTION 3 III

### RID

UN 1866 RESIN SOLUTION 3 III

### INTERNATIONAL MARITIME DANGEROUS GOODS

UN 1866 RESIN SOLUTION 3 III

### INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

UN 1866 Resin solution 3 III

### INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

UN 1866 Resin solution 3 III

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

## 15. REGULATORY INFORMATION

### Product Use Description

no data available

### Hazard symbols



Harmful

### R-phrases(s)

R10 Flammable.  
R20 Harmful by inhalation.  
R36/38 Irritating to eyes and skin.

### S-phrases(s)

<b>ASHLAND</b>		Page: 8 of 8
<b>SAFETY DATA SHEET</b>		Revision Date: 10.03.2009
		Print Date: 20.10.2010
DERAKANE® 8084 EPOXY VINYL ESTER RESIN		MSDS Number: R0402390 Version: 1.2

- S16 Keep away from sources of ignition - No smoking.  
S23 Do not breathe vapour.  
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S37/39 Wear suitable gloves and eye/face protection.  
S51 Use only in well-ventilated areas.  
S60 This material and its container must be disposed of as hazardous waste.

#### Contains

Styrene	CAS 100-42-5
---------	--------------

#### 16. OTHER INFORMATION

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

- R20 Harmful by inhalation.  
R36/38 Irritating to eyes and skin.  
R10 Flammable.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by Ashland's Environmental Health and Safety Department (+31 10 497 5000).