

M A T E R I A L S A F E T Y D A T A S H E E T

Dow Chemical U.S.A. Midland, MI 48674 Emergency Phone: 517-636-4400

Product Code: 19774

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PRODUCT NAME: DERAKANE (R) 411-35 LOW INHIBITOR VINYL ESTER RESIN

Effective Date: 01/10/86 Date Printed: 02/05/86

MSDS:000660

6. HEALTH HAZARD DATA:

EYE: May cause moderate irritation with corneal injury. Vapors may irritate eyes. May cause lachrymation (tears).

SKIN CONTACT: Prolonged or repeated exposure may cause skin irritation. Material may stick to skin causing irritation upon removal.

SKIN ABSORPTION: A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts. The LD50 for skin absorption in rabbits is expected to be >2000 mg/kg. The LD50 for skin absorption is expected to be >2000 mg/kg.

INGESTION: Single dose oral toxicity is believed to be low. The oral LD50 for rats is expected to be >4000 mg/kg. If aspirated (liquid enters the lung), may be rapidly absorbed through the lungs and result in injury to other body systems.

INHALATION: Excessive vapor concentrations are attainable and could be hazardous on single exposure. Signs and symptoms of excessive exposure may be anesthetic or narcotic effects. Excessive exposure may cause irritation to upper respiratory tract.

SYSTEMIC & OTHER EFFECTS: Repeated excessive exposures to high amounts may cause CNS, liver, kidney effects and respiratory or eye irritation. Repeated excessive exposures to smaller amounts may cause CNS effects and respiratory or eye irritation. Neither the data from various long-term animal studies nor from epidemiology of workers exposed to styrene provide an adequate basis to conclude that styrene is carcinogenic. In laboratory animals, styrene did not produce any effects on the fetus even at exposure concentrations having an adverse effect on the mother. In animal studies, styrene has been shown not to interfere with reproduction. Results of in vitro ('test tube') and animal mutagenicity tests on styrene have been inconclusive.

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7. FIRST AID:

EYES: Irrigate with flowing water immediately and continuously for 15 minutes. Consult medical personnel.

SKIN: Wash off in flowing water or shower.

INGESTION: Do not induce vomiting. Call a physician and/or transport to emergency facility immediately.

INHALATION: Remove to fresh air. If not breathing, give mouth-to-mouth resuscitation. If breathing is difficult, give oxygen. Call a physician.

NOTE TO PHYSICIAN: The decision of whether to induce vomiting or not should be made by the attending physician. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

8. HANDLING PRECAUTIONS:

EXPOSURE GUIDELINE (S): ACGIH TLV is 50 ppm, STEL 100 ppm for styrene. OSHA PEL is 100 ppm, ceiling 200 ppm, peak 600 ppm for styrene.

VENTILATION: Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.

RESPIRATORY PROTECTION: Use an approved respirator. Selection of air-purifying or supplied-air will depend on the specific operation and the potential airborne concentration of the material.

SKIN PROTECTION: Use protective clothing impervious to this material. Selection of specific items such as gloves, boots, apron, or full-body suit will depend on operation.

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8. HANDLING PRECAUTIONS: (CONTINUED)

EYE PROTECTION: Use chemical goggles. If vapor exposure causes eye irritation, use a full-face respirator. Eye wash fountain should be located in immediate work area.

9. ADDITIONAL INFORMATION:

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Practice good care and caution to avoid skin and eye contact and to avoid breathing vapors. For additional precautions, see Dow Bulletin, DERAKANE (R) Vinyl Ester Resins - Fabricating Tips.

MSDS STATUS: Revised 1, 6, 7, and 8.

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