

MATERIAL SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product (material) Name: ERL 4221 (was 4206). Catalogue # C056.
Other Names:
Recommended Use: Epoxy Monomer.

Supplier Name: ProSciTech
Postal Address: PO Box 111, Thuringowa Central Qld. 4817 Australia
Street Address: 1/11 Carlton Street, Kirwan, Qld. 4817 Australia
Telephone Number: (07) 4773 9444
Fax Number: (07) 4773 2244
Emergency Contact: (07) 4773 9444 8:30am – 5:00pm, Monday to Friday

SECTION 2 - HAZARDS IDENTIFICATION

Hazard Classification: Hazardous according to criteria of NOHSC.
Risk Phrases:
Safety Phrases:

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE:
Chemical Identity: ERL 4221 (was 4206)
Common Name(s): (VCD), Vinyl-4-Cyclohexene Diepoxide
CAS Number(s): 106-87-6

MIXTURE:

Ingredients	Cas Number(s)	Proportion (%)
ERL 4221 (was 4206)	106-87-6	100

SECTION 4 - FIRST AID MEASURES

Swallowed: If patient is conscious, give two glasses of water and induce vomiting. Seek immediate medical attention. NEVER give anything by mouth to an unconscious person.

Eye: Flush eyes with water for at least 15 minutes. DO NOT remove contact lenses, if worn. Obtain medical attention, preferably from an ophthalmologist.

Skin: Remove contaminated clothing and wash skin with soap and water. Obtain medical attention if irritation persists. Wash clothing before reuse. Discard leather articles such as shoes and belt.

Inhaled: Remove person to fresh air. Obtain medical attention.

First Aid Facilities: Safety shower, eyebath.

Medical Attention & Special Treatment: There is no specific antidote. Treatment of over-exposure should be directed at the control of symptoms and the clinical condition of the patient.

ADDITIONAL INFORMATION:

SECTION 5 - FIRE FIGHTING MEASURES

Suitable Extinguishing Media: LARGE FIRE: Apply alcohol-type or all-purpose-type foams by manufacturer recommended techniques for large fires.
 SMALL FIRE: Use carbon dioxide or dry chemical media.
 Carbon monoxide, carbon dioxide.

Hazards from Combustion Products:

Precautions for Fire Fighters: Use remote spray monitors or fight fire from behind shields. Use self-contained breathing apparatus and wear protective clothing.

Hazchem Code:

SECTION 6 - ACCIDENTAL RELEASE MEASURES**Emergency Procedures:****Containment and clean up:**

Wear suitable protective equipment to avoid contact with liquid and vapours. Collect material for disposal. This material is not readily biodegradable in a biological wastewater treatment plant and it may be toxic to aquatic life. Avoid discharge to sewers or natural waters.

SECTION 7 - HANDLING & STORAGE**Precautions for Safe Handling:**

Wear appropriate protective equipment, minimise contact with material, minimise release to environment, keep container closed when not in use, use only in a well-ventilated area and wash thoroughly after handling.

Conditions for Safe Storage:

Store away from incompatible materials and heat in a cool, well-ventilated area.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION**National Exposure Standards:**

10ppm TWA (skin) OSHA, 0.1ppm TWA (skin) ACGIH.

Biological Limit Values:

No biological limit allocated.

Engineering Controls:

Use only in a well-ventilated area, preferably mechanical ventilation.

Personal Protective Equipment:

Use self-contained breathing apparatus if needed. Wear butyl rubber gloves, faceshield or monogoggles and a chemical apron (butyl rubber recommended).

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES**Appearance:**

Low viscosity liquid.

Odour:

Mild.

pH:

Not available.

Vapour pressure:

<0.1mmHg at 20°C.

Vapour density:

4.8 at air = 1.

Boiling point/range:

227°C.

Freezing/melting point:

-55°C.

Solubility:

20.1% at 20°C in water.

Specific gravity or density:

1.10 at H₂O = 1.

Flash Point:

107 - 110°C.

Flammable (explosive) limits:

Not available.

Ignition temperature:

Not available.

Additional Information:**SECTION 10 - STABILITY AND REACTIVITY****Chemical stability:**

Stable under normal conditions of use.

Conditions to avoid:

Temperatures above 280°C.

Incompatible Materials:

Amines, acids, oxidising agents, ammonia, halogens, anhydrides and aluminium alkoxides.

Hazardous Decomposition

Carbon monoxide, carbon dioxide.

Products:**Hazardous Reactions:**

SECTION 11 - TOXICOLOGICAL INFORMATION**Acute and chronic health effects:****Possible routes of exposure:****Range of effects following exposure:**

Eye/skin contact, inhalation, ingestion.

Swallowing: Moderately toxic. May cause diarrhea, nausea, abdominal discomfort and vomiting.

Skin: Irritation with discomfort, seen as local redness possible swelling. May cause sensitisation and an allergic skin reaction. May aggravate existing dermatitis.

Inhalation: May cause irritation of the respiratory tract, experienced as nasal discomfort and discharge with chest pain and coughing.

Eye: Causes severe irritation, experienced as discomfort or pain, excess blinking and tear production, marked excess redness and swelling of the conjunctiva, and chemical burns of the eye.

Dose likely to cause injury:

Prolonged or widespread exposure may result in the absorption of potentially harmful amounts of material.

Delayed effects:**Relevant negative data:**

Vinyl cyclohexene dioxide (VCD) has been classified as possibly carcinogenic to humans. VCD has been shown to cause cancer in laboratory animals in lifetime skin painting studies. In addition this material has also been shown to cause mutations in a variety of in vitro test systems.

SECTION 12 – ECOLOGICAL INFORMATION**Ecotoxicity:**

May be potentially harmful to aquatic organisms.

Persistence and degradability:

This material is not readily biodegradable in a biological wastewater treatment plant and it may be toxic to aquatic life. Avoid discharge to sewers or natural waters.

Mobility:**Additional Information:****SECTION 13 - DISPOSAL CONSIDERATIONS****Disposal Methods:**

Dilute with an inert solvent and incinerate in a furnace where permitted under appropriate Federal, State and Local regulations.

Special Precautions:**SECTION 14 - TRANSPORT INFORMATION****UN Number:****UN Proper Shipping Name:****Class and Subsidiary risk:****Packing Group:****Special Precautions for User:****Hazchem Code:****SECTION 15 - REGULATORY INFORMATION****Poison Schedule Number:**

None allocated

SECTION 16 - OTHER INFORMATION**Date of preparation of MSDS:**

16 April 2008