

MATERIAL SAFETY DATA SHEET

BADGE

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Cayman Chemical Company
1180 E. Ellsworth Rd.
Ann Arbor, MI 48108

Printed: 04/10/2006
Revision: 04/10/2006
Supersedes Revision: 08/25/2003
Date Created: 06/27/1996

1. Product and Company Identification

Product Code: 70790
Product Name: BADGE
Manufacturer Information
Company Name: Cayman Chemical Company
Emergency Contact: Cayman Chemical Company (800)364-9897
Information: Cayman Chemical Company (734)971-3335
Chemical Family: Agonists/Antagonists
CAS Number: 1675-54-3
RTECS #: TX3800000
Synonyms: 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-oxirane; Bisphenol A diglycidyl ether

2. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Percentage	OSHA PEL	ACGIH TLV	Other Limits
1. Oxirane, 2,2'-[(1-Methylethylidene)bis(4,1-phenyleneoxy methylene)]bis-	1675-54-3	100.0 %	No data.	No data.	No data.
Hazardous Components (Chemical Name)	RTECS #	OSHA STEL	OSHA CEIL	ACGIH STEL	ACGIH CEIL
1. Oxirane, 2,2'-[(1-Methylethylidene)bis(4,1-phenyleneoxy methylene)]bis-	TX3800000	No data.	No data.	No data.	No data.

3. Hazards Identification

Emergency Overview: No data available.
Route(s) of Entry: Inhalation? Yes Skin? Yes Eyes? Yes Ingestion? Yes Other: Injection
Potential Health Effects (Acute and Chronic): Contact may cause skin or eye irritation.
Material is irritating to the mucous membranes and upper respiratory tract.
May be harmful by inhalation, ingestion, or skin absorption.
May cause allergic skin reaction.
May cause respiratory system irritation.
Possible carcinogen.
The toxicological properties of this compound have not been fully evaluated.
LD 50/LC 50: Please refer to Section 11.
Signs and Symptoms Of Exposure: Eye inflammation is characterized by redness, watering, and itching.
Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

4. First Aid Measures

Emergency and First Aid Procedures: If inhaled remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.
If swallowed, INDUCE VOMITING by sticking finger in throat. Lower head so that the vomit will not reenter the mouth and throat. Wash mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention.
In case of contact with eyes, hold eyelids apart and flush eyes with plenty of water. After initial flushings, remove any contact lenses and continue flushing for at least 20 minutes. Have eyes examined and tested by medical personnel.
In case of skin contact, immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

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5. Fire Fighting Measures

Flash Pt:	251.00 C
Explosive Limits:	LEL: No data. UEL: No data.
Fire Fighting Instructions:	As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.
Flammable Properties and Hazards:	Combustible liquid.
Hazardous Combustion Products:	carbon dioxide carbon monoxide
Extinguishing Media:	Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray when fighting fires involving this material.
Unsuitable Extinguishing Media:	No data available.

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled:	Wear a NIOSH/MSHA approved self-contained breathing apparatus and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves). Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. After removal, ventilate contaminated area and flush thoroughly with water.
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7. Handling and Storage

Hazard Label Information:	Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation. Wash thoroughly after handling.
Precautions To Be Taken in Handling:	Avoid breathing (dust, vapor, mist, gas). Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Do not reuse this container. Hygroscopic. Use with adequate ventilation. Wash thoroughly after handling.
Precautions To Be Taken in Storing:	Keep tightly closed. Store at correct temperature.

8. Exposure Controls/Personal Protection

Protective Equipment Summary - Hazard Label Information:	Eye wash station in work area Lab coat Latex disposable gloves Safety glasses Safety shower in work area Vent Hood
Respiratory Equipment (Specify Type):	NIOSH/MSHA approved respirator
Eye Protection:	Safety glasses
Protective Gloves:	Latex disposable gloves
Other Protective Clothing:	Lab coat
Engineering Controls (Ventilation etc.):	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
Work/Hygienic/Maintenance Practices:	Do not take internally. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Wash thoroughly after handling.

9. Physical and Chemical Properties

Physical States:	[] Gas [X] Liquid [] Solid
Melting Point:	No data.
Boiling Point:	No data.
Autoignition Pt:	No data.
Flash Pt:	251.00 C Method:
Explosive Limits:	LEL: No data. UEL: No data.

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Specific Gravity (Water = 1):	No data.
Vapor Pressure (vs. Air or mm Hg):	No data.
Vapor Density (vs. Air = 1):	1.16
Evaporation Rate (vs Butyl Acetate=1):	No data.
Solubility in Water:	Insoluble* at 25.0 C
Other Solubility Notes:	*PBS pH 7.2, sol. in DMF, DMSO, & EtOH
Percent Volatile:	No data.
Corrosion Rate:	No data.
Formula:	C21H24O4
Molecular Weight:	340.40
pH:	No data.
Appearance and Odor:	A neat oil

10. Stability and Reactivity

Stability:	Unstable [] Stable [X]
Conditions To Avoid - Instability:	protect from moisture protect from heat
Incompatibility - Materials To Avoid:	strong oxidizing agents
Hazardous Decomposition Or Byproducts:	carbon dioxide carbon monoxide
Hazardous Polymerization:	Will occur [] Will not occur [X]
Conditions To Avoid - Hazardous Polymerization:	No data available.

11. Toxicological Information

Toxicological Information:	The toxicological effects of this compound have not been thoroughly studied.
	Toxicity Data: Oral LD50 (rat): 11,300 mg/kg Intraperitoneal LD50 (rat): 2200 mg/kg Oral LD50 (mouse): 15,600 mg/kg Dermal LD50 (rabbit): 20,000 mg/kg
Chronic Toxicological Effects:	Investigated as a tumorogen. Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here. See actual entry in RTECS for complete information. BADGE RTECS Number: TX3800000
Carcinogenicity/Other Information:	Group 2B carcinogen (sufficient evidence in animals, no adequate data in humans) Tumorigenic: Mouse (dermal) 166000 mg/kg/2Y-I. Carcinogenic by RTECS criteria. Tumorigenic: Mouse (dermal) 312000 mg/kg/2Y-I. Carcinogenic by RTECS criteria.
Carcinogenicity:	NTP? No IARC Monographs? Yes OSHA Regulated? No

12. Ecological Information

Ecological Information:	Runoff from fire control or dilution water may cause pollution.
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13. Disposal Considerations

Waste Disposal Method:	Dispose in accordance with local, state and federal regulations.
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14. Transport Information

LAND TRANSPORT (US DOT)	
DOT Proper Shipping Name:	No data available.
Additional Transport Information:	Transport in accordance with local, state, and federal regulations.

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15. Regulatory Information

US EPA SARA Title III

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. Oxirane, 2,2'-[(1-Methylethylidene)bis(4,1-phenyleneoxy methylene)]bis-	1675-54-3	No	No	No	No

US EPA CAA, CWA, TSCA

Hazardous Components (Chemical Name)	CAS #	EPA CAA	EPA CWA NPDES	EPA TSCA	CA PROP 65
1. Oxirane, 2,2'-[(1-Methylethylidene)bis(4,1-phenyleneoxy methylene)]bis-	1675-54-3	No	No	8A	No

16. Other Information

Company Policy or Disclaimer

For research use only, not for human or veterinary clinical use.

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