MATERIAL SAFETY DATA SHEET

Bayer MaterialScience

Bayer MaterialScience LLC
Product Safety & Regulatory Affairs
100 Bayer Road
Pittsburgh, PA 15205-9741
USA

TRANSPORTATION EMERGENCY

CALL CHEMTREC:	(800) 424-9300
INTERNATIONAL:	(703) 527-3887

NON-TRANSPORTATION

Emergency Phone:	Call Chemtrec
Information Phone:	(800) 662-2927

1. Product and Company Identification

Product Name: BAYTEC ENC 140 P
Material Number: 5210623

2. Hazards Identification

Emergency Overview

Warning Color: Pale yellow, Amber **Form:** liquid viscous **Odor:** Slight.
May cause eye, skin, and respiratory tract irritation. Use cold water spray to cool fire-exposed containers to minimize the risk of rupture. May cause allergic skin reaction. Contains material which may cause birth defects based on animal data.

Potential Health Effects

Primary Routes of Entry: Skin Contact, Eye Contact

Medical Conditions Aggravated by Exposure: Eye disorders, Respiratory disorders, Skin disorders

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE

Inhalation
Acute Inhalation
For Component: Bisphenol A Diglycidyl Ether (BADGE)
May be harmful by inhalation.

Skin
Acute Skin
For Component: Bisphenol A Diglycidyl Ether (BADGE)
Slightly toxic by skin absorption. Not expected to be irritating. May cause allergic skin reaction with symptoms of reddening, itching, swelling, and rash.

Eye
Acute Eye

For Component: Bisphenol A Diglycidyl Ether (BADGE)
May cause irritation with symptoms of reddening, tearing and stinging.

Ingestion
Acute Ingestion
For Component: Bisphenol A Diglycidyl Ether (BADGE)
Not expected to be harmful if swallowed.

Carcinogenicity:
No Carcinogenic substances as defined by IARC, NTP and/or OSHA

3. Composition/Information on Ingredients

Hazardous components

Weight percent	Components	CAS-No.
35 - 45%	Bisphenol A Diglycidyl Ether (BADGE)	25068-38-6

4. First aid measures

Eye contact
In case of contact, flush eyes with plenty of lukewarm water. Get medical attention if irritation develops.

Skin contact
In case of skin contact, wash affected areas with soap and water. Immediately remove contaminated clothing and shoes. Get medical attention if irritation develops.

Inhalation
If inhaled, remove to fresh air. Get medical attention if irritation develops.

Ingestion
If ingested, do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

5. Firefighting measures

Suitable extinguishing media: Carbon dioxide (CO2), Dry chemical, Foam, water spray for large fires.

Special Fire Fighting Procedures
Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. Use cold water spray to cool fire-exposed containers to minimize the risk of rupture.

6. Accidental release measures

Spill and Leak Procedures
Cover spill with inert material (e. g., dry sand or earth) and collect for proper disposal. Use appropriate personal protective equipment during clean up. Evacuate and keep unnecessary people out of spill area.

7. Handling and storage

Storage temperature:
maximum: 50 °C (122 °F)

Storage period
3 Years

Handling/Storage Precautions
Handle in accordance with good industrial hygiene and safety practices. Wash thoroughly after handling. Keep container closed when not in use. Material is hygroscopic and may absorb small amounts of atmospheric moisture. If contamination with isocyanates is suspected, do not reseal containers. Avoid breathing dust, vapor, or mist. Avoid contact with eyes. Avoid contact with skin or clothing.

8. Exposure controls/personal protection

Country specific exposure limits have not been established or are not applicable

Industrial Hygiene/Ventilation Measures
Use local and general exhaust ventilation to control levels of exposure.

Respiratory protection
None required under normal conditions of use.

Hand protection
Permeation resistant gloves.

Eye protection
Chemical safety goggles or safety glasses with side-shields.

Skin and body protection
Wear cloth work clothing including long pants and long-sleeved shirts.

Additional Protective Measures
Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product.

9. Physical and chemical properties

Form:	liquid
Appearance:	viscous
Color:	Pale yellow, Amber
Odor:	Slight
pH:	6
Freezing Point:	Not Established
Boiling point/boiling range:	not established
Flash point:	227.22 °C (441 °F) (Pensky-Martens Closed Cup (ASTM D-93))
Vapour pressure:	Not Established
Specific Gravity:	Approximately 1.08 @ 25 °C (77 °F)

Solubility in Water:	Partially soluble
VOC Content:	0 %
Viscosity, dynamic:	1,350 cps @ 25 °C (77 °F)
Bulk density:	Approximately 1,078 kg/m3
Hygroscopicity:	hygroscopic

10. Stability and reactivity

Hazardous Reactions
Hazardous polymerisation does not occur.

Stability
Stable

Materials to avoid
Oxidizing agents, Isocyanates

Hazardous decomposition products
By Fire: Carbon Dioxide; Carbon Monoxide; other aliphatic fragments which have not been determined

11. Toxicological information

Toxicity Data for Bisphenol A Diglycidyl Ether (BADGE)
Acute oral toxicity
LD50: > 5,000 mg/kg (rat)
Estimated Value

Acute dermal toxicity
LD50: > 4,000 mg/kg (Rat)
Estimated Value

Skin irritation
rabbit, Moderately irritating

Eye irritation
rabbit, Moderately irritating

Sensitisation
Causes sensitization.

Mutagenicity
Genetic Toxicity in Vitro:
Positive and negative results were seen in various in vitro studies.
Genetic Toxicity in Vivo:

Positive and negative results were seen in various in vivo studies.

Carcinogenicity
rat, dermal, 2 years,
negative
mouse, dermal, 2 years,
negative

Developmental Toxicity/Teratogenicity

Fetotoxicity has been observed in animal studies.

12. Ecological information

Ecological Data for Bisphenol A Diglycidyl Ether (BADGE)
Biodegradation
12 %,

Acute and Prolonged Toxicity to Fish
LC50: 1.5 mg/l (Rainbow (Donaldson)Trout (Oncorhynchus mykiss), 96 h)
LC50: 2.4 mg/l (Zebra fish (Brachydanio rerio), 96 h)

Acute Toxicity to Aquatic Invertebrates
EC50: 3.6 mg/l (Water flea (Daphnia magna), 24 h)

13. Disposal considerations

Waste Disposal Method
Waste disposal should be in accordance with existing federal, state and local environmental control laws.

Empty Container Precautions
Recondition or dispose of empty container in accordance with governmental regulations.

14. Transport information

Land transport (DOT)
Non-Regulated

Sea transport (IMDG)
Non-Regulated

Air transport (ICAO/IATA)
Non-Regulated

15. Regulatory information

United States Federal Regulations

OSHA Hazcom Standard Rating: Hazardous

US. Toxic Substances Control Act: Listed on the TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302):
Components
None

SARA Section 311/312 Hazard Categories:
Acute Health Hazard, Chronic Health Hazard

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):
Components
None

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required:
Components
None

US. EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261)
Under RCRA, it is the responsibility of the person who generates a solid waste, as defined in 40 CFR 261.2, to determine if that waste is a hazardous waste.

State Right-To-Know Information

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:

Weight percent	Components	CAS-No.
>=1%	Polyether Polyol	25723-16-4
35 - 45%	Bisphenol A Diglycidyl Ether (BADGE)	25068-38-6

Pennsylvania Right to Know Special Hazard Substance List:

Weight percent	Components	CAS-No.
<0.1%	Epichlorohydrin	106-89-8

MA Right to Know Extraordinarily Hazardous Substance List:

Weight percent	Components	CAS-No.
<0.1%	Epichlorohydrin	106-89-8
<0.1%	Diglycidyl Ether	2238-07-5

California Prop. 65:
Warning! This product contains chemical(s) known to the State of California to be Carcinogenic. - Developmental toxin. - Male reproductive toxin.

Weight percent	Components	CAS-No.
<0.1%	Epichlorohydrin	106-89-8
<0.1%	Ether	CAS# is a trade secret
1 - 5 ppm	Phenyl Glycidyl Ether	122-60-1
<1 ppm	Methanol	67-56-1

16. Other information

NFPA 704M Rating

Health	2
Flammability	1
Reactivity	0

Other	

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

HMIS Rating

Health	2*
Flammability	1
Physical Hazard	0

0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe
* = Chronic Health Hazard

The method of hazard communication for Bayer MaterialScience LLC is comprised of Product Labels and Material Safety Data Sheets. HMIS and NFPA ratings are provided by Bayer MaterialScience LLC as a customer service.

Contact person:	Product Safety Department
Telephone:	(412) 777-2835
MSDS Number:	112000032655
Version Date:	11/21/2012
Report version:	3.0

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Changes since the last version are highlighted in the margin. This version replaces all previous versions.