



**DOW CORNING(R) EI-1184 OPTICAL ENCAPSULANT KIT**

Version 1.0      Revision Date: 09/16/2014      MSDS Number: 562005-00001      Date of last issue: -  
 Date of first issue: 09/16/2014

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : DOW CORNING(R) EI-1184 OPTICAL ENCAPSULANT KIT  
 Product code : 000000000004124805  
 Chemical nature : Silicone elastomer

**Manufacturer or supplier's details**

Company name of supplier : Dow Corning Corporation  
 Address : South Saginaw Road  
 Midland Michigan 48686  
 Telephone : (989) 496-6000  
 Emergency telephone : 24 Hour Emergency Telephone : (989) 496-5900  
 CHEMTREC : (800) 424-9300  
 Disposal considerations : (989) 496-6315

**Recommended use of the chemical and restrictions on use**

Recommended use : Electrical industry and electronics

**SECTION 2. HAZARDS IDENTIFICATION**

**Emergency Overview**

Appearance	viscous liquid
Color	Clear to slightly hazy, colorless
Odor	none
Hazard Summary	Possible cancer hazard

**OSHA Regulatory status** : This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

**Potential Health Effects**

Inhalation : No significant effects expected from a single short-term exposure.  
 Skin : No significant irritation expected from a single short-term exposure.  
 Eyes : No significant irritation expected from a single exposure.



**DOW CORNING(R) EI-1184 OPTICAL ENCAPSULANT KIT**

Version 1.0      Revision Date: 09/16/2014      MSDS Number: 562005-00001      Date of last issue: -  
 Date of first issue: 09/16/2014

Ingestion : No significant effects expected from a single short-term exposure.

Chronic Exposure : May cause cancer based on animal data.

Aggravated Medical Condition : None known.

**Carcinogenicity:**

**IARC**      Group 2B: Possibly carcinogenic to humans

Ethylbenzene      100-41-4

**ACGIH**      Confirmed animal carcinogen with unknown relevance to humans

Ethylbenzene      100-41-4

**OSHA**      No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**NTP**      No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

Chemical nature : Silicone elastomer

**Hazardous ingredients**

Chemical Name	CAS-No.	Concentration (%)
Ethylbenzene	100-41-4	>= 0.1 - < 1

**SECTION 4. FIRST AID MEASURES**

If inhaled : If inhaled, remove to fresh air.  
Get medical attention if symptoms occur.

In case of skin contact : Wash with water and soap as a precaution.  
Get medical attention if symptoms occur.

In case of eye contact : Flush eyes with water as a precaution.  
Get medical attention if irritation develops and persists.

If swallowed : If swallowed, DO NOT induce vomiting.



**DOW CORNING(R) EI-1184 OPTICAL ENCAPSULANT KIT**

Version 1.0	Revision Date: 09/16/2014	MSDS Number: 562005-00001	Date of last issue: - Date of first issue: 09/16/2014
----------------	------------------------------	------------------------------	--

Get medical attention if symptoms occur.  
Rinse mouth thoroughly with water.

Protection of first-aiders : No special precautions are necessary for first aid responders.

Notes to physician : Treat symptomatically and supportively.

**SECTION 5. FIRE-FIGHTING MEASURES**

Suitable extinguishing media : Water spray  
Alcohol-resistant foam  
Dry chemical  
Carbon dioxide (CO2)

Unsuitable extinguishing media : None known.

Specific hazards during fire fighting : Exposure to combustion products may be a hazard to health.

Hazardous combustion products : Carbon oxides  
Silicon oxides  
Formaldehyde

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Use water spray to cool unopened containers.  
Remove undamaged containers from fire area if it is safe to do so.  
Evacuate area.

Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.  
Use personal protective equipment.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures : Follow safe handling advice and personal protective equipment recommendations.

Environmental precautions : Discharge into the environment must be avoided.  
Prevent further leakage or spillage if safe to do so.  
Prevent spreading over a wide area (e.g. by containment or oil barriers).  
Retain and dispose of contaminated wash water.  
Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for : Soak up with inert absorbent material.



**DOW CORNING(R) EI-1184 OPTICAL ENCAPSULANT KIT**

Version 1.0      Revision Date: 09/16/2014      MSDS Number: 562005-00001      Date of last issue: -  
 Date of first issue: 09/16/2014

containment and cleaning up      For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent.  
 Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.  
 Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

**SECTION 7. HANDLING AND STORAGE**

- Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
- Local/Total ventilation : Use only with adequate ventilation.
- Advice on safe handling : Handle in accordance with good industrial hygiene and safety practice.  
 Take care to prevent spills, waste and minimize release to the environment.
- Conditions for safe storage : Keep in properly labeled containers.  
 Store in accordance with the particular national regulations.
- Materials to avoid : Do not store with the following product types:  
 Strong oxidizing agents

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Ingredients with workplace control parameters**

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Ethylbenzene	100-41-4	TWA	20 ppm	ACGIH
		TWA	100 ppm 435 mg/m3	OSHA Z-1
		TWA	100 ppm 435 mg/m3	NIOSH REL
		ST	125 ppm 545 mg/m3	NIOSH REL

**Biological occupational exposure limits**

Ingredients	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis

**DOW CORNING(R) EI-1184 OPTICAL ENCAPSULANT KIT**

Version 1.0      Revision Date: 09/16/2014      MSDS Number: 562005-00001      Date of last issue: -  
 Date of first issue: 09/16/2014

Ethylbenzene	100-41-4	Sum of mandelic acid and phenyl glyoxylic acid	Urine	End of shift at end of work-week	0.7 g/g creatinine	ACGIH BEI
--------------	----------	--	-------	----------------------------------	--------------------	-----------

**Engineering measures** : Processing may form hazardous compounds (see section 10).  
 Ensure adequate ventilation, especially in confined areas.  
 Minimize workplace exposure concentrations.

**Personal protective equipment**

Respiratory protection : No personal respiratory protective equipment normally required.

Hand protection  
 Remarks : Wash hands before breaks and at the end of workday.

Eye protection : Wear the following personal protective equipment:  
 Safety glasses

Skin and body protection : Skin should be washed after contact.

Hygiene measures : Ensure that eye flushing systems and safety showers are located close to the working place.  
 When using do not eat, drink or smoke.  
 Wash contaminated clothing before re-use.  
 These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions.  
 For further information regarding the use of silicones / organic oils in consumer aerosol applications, please refer to the guidance document regarding the use of these type of materials in consumer aerosol applications that has been developed by the silicone industry ([www.SEHSC.com](http://www.SEHSC.com)) or contact the Dow Corning customer service group.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : viscous liquid  
 Color : Clear to slightly hazy, colorless  
 Odor : none  
 Odor Threshold : No data available  
 pH : No data available

**DOW CORNING(R) EI-1184 OPTICAL ENCAPSULANT KIT**

Version	Revision Date:	MSDS Number:	Date of last issue: -
1.0	09/16/2014	562005-00001	Date of first issue: 09/16/2014

---

Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	> 35 °C
Flash point	:	240 °C Method: Seta closed cup
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapor pressure	:	No data available
Relative vapor density	:	No data available
Relative density	:	< 1.3
Solubility(ies) Water solubility	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	No data available
Thermal decomposition	:	No data available
Viscosity Viscosity, dynamic	:	4,500 mPa.s
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Molecular weight	:	No data available

---

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity	:	Not classified as a reactivity hazard.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Can react with strong oxidizing agents. When heated to temperatures above 150 °C (300 °F) in the presence of air, product can form formaldehyde vapors. Safe handling conditions may be maintained by keeping vapor

**DOW CORNING(R) EI-1184 OPTICAL ENCAPSULANT KIT**

Version	Revision Date:	MSDS Number:	Date of last issue: -
1.0	09/16/2014	562005-00001	Date of first issue: 09/16/2014

concentrations within the occupational exposure limit for formaldehyde.

Formaldehyde may cause cancer. It is also toxic by inhalation, skin absorption and ingestion, corrosive to skin and eyes, and may cause skin sensitization and respiratory irritation.

See OSHA formaldehyde standard, 29 CFR 1910.1048

Hazardous decomposition products will be formed at elevated temperatures.

Conditions to avoid : None known.

Incompatible materials : Oxidizing agents

Hazardous decomposition products  
Thermal decomposition : Formaldehyde

**SECTION 11. TOXICOLOGICAL INFORMATION**

Information on likely routes of exposure : Inhalation  
Skin contact  
Ingestion  
Eye contact

**Acute toxicity**

Not classified based on available information.

**Ingredients:****Ethylbenzene:**

Acute oral toxicity : LD50 (Rat): 3,500 mg/kg

Acute inhalation toxicity : LC50 (Rat): 17.2 mg/l  
Exposure time: 4 h  
Test atmosphere: vapor

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

**Skin corrosion/irritation**

Not classified based on available information.

**Serious eye damage/eye irritation**

Not classified based on available information.

**Ingredients:****Ethylbenzene:**

Species: Rabbit

Result: No eye irritation

**DOW CORNING(R) EI-1184 OPTICAL ENCAPSULANT KIT**

Version 1.0      Revision Date: 09/16/2014      MSDS Number: 562005-00001      Date of last issue: -  
Date of first issue: 09/16/2014

**Respiratory or skin sensitization**

Skin sensitization: Not classified based on available information.  
Respiratory sensitization: Not classified based on available information.

**Ingredients:****Ethylbenzene:**

Test Type: Human repeat insult patch test (HRIPT)  
Routes of exposure: Skin contact  
Result: negative

**Germ cell mutagenicity**

Not classified based on available information.

**Ingredients:****Ethylbenzene:**

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro  
Result: negative

: Test Type: In vitro mammalian cell gene mutation test  
Method: OECD Test Guideline 476  
Result: negative

Genotoxicity in vivo : Test Type: Unscheduled DNA synthesis (UDS) test with  
mammalian liver cells in vivo  
Test species: Mouse  
Application Route: Inhalation  
Method: OECD Test Guideline 486  
Result: negative

**Carcinogenicity**

May cause cancer based on animal data.

**Ingredients:****Ethylbenzene:**

Species: Rat  
Application Route: Inhalation  
Exposure time: 104 weeks  
Result: positive  
Remarks: The mechanism or mode of action may not be relevant in humans.

Carcinogenicity - Assessment : Limited evidence of carcinogenicity in animal studies

**Reproductive toxicity**

Not classified based on available information.

**Ingredients:****Ethylbenzene:**

Effects on fertility : Test Type: Two-generation reproduction toxicity study  
Species: Rat



**DOW CORNING(R) EI-1184 OPTICAL ENCAPSULANT KIT**

Version	Revision Date:	MSDS Number:	Date of last issue: -
1.0	09/16/2014	562005-00001	Date of first issue: 09/16/2014

Application Route: inhalation (vapor)  
Method: OECD Test Guideline 415  
Result: negative

Effects on fetal development : Test Type: Embryo-fetal development  
Species: Rat  
Application Route: Inhalation  
Method: OECD Test Guideline 414  
Result: negative

**STOT-single exposure**

Not classified based on available information.

**STOT-repeated exposure**

Not classified based on available information.

**Repeated dose toxicity****Ingredients:****Ethylbenzene:**

Species: Rat  
NOAEL: 4.74 mg/l  
Application Route: inhalation (vapor)  
Exposure time: 90 d

**Aspiration toxicity**

Not classified based on available information.

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Ingredients:****Ethylbenzene:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 4.2 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1.8 - 2.4 mg/l  
Exposure time: 48 h

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 5.4 mg/l  
Exposure time: 72 h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Ceriodaphnia dubia (water flea)): 0.96 mg/l  
Exposure time: 7 d

Toxicity to bacteria : EC50 (Nitrosomonas sp.): 96 mg/l

**DOW CORNING(R) EI-1184 OPTICAL ENCAPSULANT KIT**

Version 1.0	Revision Date: 09/16/2014	MSDS Number: 562005-00001	Date of last issue: - Date of first issue: 09/16/2014
----------------	------------------------------	------------------------------	--

Exposure time: 24 h  
Method: OECD Test Guideline 209

**Persistence and degradability****Ingredients:****Ethylbenzene:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 70 - 80 %  
Exposure time: 28 d

**Bioaccumulative potential****Ingredients:****Ethylbenzene:**

Bioaccumulation : Species: Fish  
Bioconcentration factor (BCF): < 100  
Remarks: Based on data from similar materials

Partition coefficient: n-  
octanol/water : log Pow: 3.6

**Mobility in soil**

No data available

**Other adverse effects**

No data available

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Resource Conservation and  
Recovery Act (RCRA) : This product has been evaluated for RCRA characteristics  
and does not meet the criteria of hazardous waste if discarded  
in its purchased form.

Waste from residues : Dispose of in accordance with local regulations.

Contaminated packaging : Dispose of as unused product.  
Empty containers should be taken to an approved waste han-  
dling site for recycling or disposal.

**SECTION 14. TRANSPORT INFORMATION****International Regulation****UNRTDG**

Not regulated as a dangerous good



**DOW CORNING(R) EI-1184 OPTICAL ENCAPSULANT KIT**

Version 1.0      Revision Date: 09/16/2014      MSDS Number: 562005-00001      Date of last issue: -  
 Date of first issue: 09/16/2014

**IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**Domestic regulation**

**49 CFR**

UN/ID/NA number : UN 3082  
 Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Xylene)  
 Class : 9  
 Packing group : III  
 Labels : CLASS 9  
 ERG Code : 171  
 Marine pollutant : no  
 Remarks : THE ABOVE INFORMATION ONLY APPLIES TO PACKAGE SIZES WHERE THE HAZARDOUS SUBSTANCE MEETS THE REPORTABLE QUANTITY.

**SECTION 15. REGULATORY INFORMATION**

**OSHA Hazards** : Carcinogen

**EPCRA - Emergency Planning and Community Right-to-Know**

**CERCLA Reportable Quantity**

Ingredients	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Xylene	1330-20-7	100	21277
Ethylbenzene	100-41-4	1000	*
Toluene	108-88-3	1000	*

\*: Calculated RQ exceeds reasonably attainable upper limit.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Chronic Health Hazard

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**DOW CORNING(R) EI-1184 OPTICAL ENCAPSULANT KIT**

Version 1.0	Revision Date: 09/16/2014	MSDS Number: 562005-00001	Date of last issue: - Date of first issue: 09/16/2014
----------------	------------------------------	------------------------------	--

**SARA 313** : The following components are subject to reporting levels established by SARA Title III, Section 313:

Ethylbenzene	100-41-4	0.18 %
--------------	----------	--------

**US State Regulations****Pennsylvania Right To Know**

Dimethyl Siloxane, Dimethylvinylsiloxo-terminated	68083-19-2	50 - 70 %
Dimethylvinylated and trimethylated silica	68988-89-6	20 - 30 %
Xylene	1330-20-7	0.1 - 1 %
Ethylbenzene	100-41-4	0.1 - 1 %

**New Jersey Right To Know**

Dimethyl Siloxane, Dimethylvinylsiloxo-terminated	68083-19-2	50 - 70 %
Dimethylvinylated and trimethylated silica	68988-89-6	20 - 30 %
Ethylbenzene	100-41-4	0.1 - 1 %

**California Prop 65**

	WARNING! This product contains a chemical known in the State of California to cause cancer.
Ethylbenzene	100-41-4
	WARNING: This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.
Toluene	108-88-3

**The ingredients of this product are reported in the following inventories:**

REACH : All ingredients (pre-)registered or exempt.

TSCA : All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

IECSC : All ingredients listed or exempt.

ENCS/ISHL : All components are listed on ENCS/ISHL or exempted from inventory listing.

KECI : All ingredients listed, exempt or notified.

DSL : All chemical substances in this product comply with the CEPA 1999 and NSNR and are on or exempt from listing on the Canadian Domestic Substances List (DSL).

**Inventories**

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)



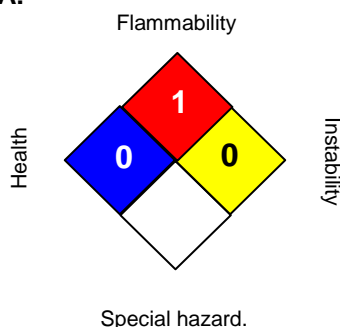
**DOW CORNING(R) EI-1184 OPTICAL ENCAPSULANT KIT**

Version 1.0	Revision Date: 09/16/2014	MSDS Number: 562005-00001	Date of last issue: - Date of first issue: 09/16/2014
----------------	------------------------------	------------------------------	--

**SECTION 16. OTHER INFORMATION**

**Further information**

**NFPA:**



**HMIS III:**

<b>HEALTH</b>	<b>0*</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

0 = not significant, 1 =Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

**Full text of other abbreviations**

- ACGIH : USA. ACGIH Threshold Limit Values (TLV)
- ACGIH BEI : ACGIH - Biological Exposure Indices (BEI)
- NIOSH REL : USA. NIOSH Recommended Exposure Limits
- OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
- ACGIH / TWA : 8-hour, time-weighted average
- NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
- NIOSH REL / ST : STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
- OSHA Z-1 / TWA : 8-hour time weighted average
- Sources of key data used to compile the Material Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

US / Z8