

Version Revision Date: SDS Number: Date of last issue: 11/23/2015 1.6 12/03/2015 802554-00007 Date of first issue: 11/20/2014

#### **SECTION 1. IDENTIFICATION**

Product name : SYLGARD(R) 184 SILICONE ELASTOMER KIT (BASE in-

formation is below)

Product code : 0000000001064291

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

Recommended use of the chemical and restrictions on use

Recommended use : Corrosion inhibitors

Electrical industry and electronics

#### **SECTION 2. HAZARDS IDENTIFICATION**

#### **GHS Classification**

Not a hazardous substance or mixture.

#### **GHS** label elements

Not a hazardous substance or mixture.

Other hazards

None known.

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

Substance / Mixture : Mixture

Chemical nature : Silicone

#### **Hazardous ingredients**

Chemical name	CAS-No.	Concentration (% w/w)
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.



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 11/23/2015

 1.6
 12/03/2015
 802554-00007
 Date of first issue: 11/20/2014

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, DO NOT induce vomiting.

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

Most important symptoms and effects, both acute and

delayed

: None known.

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 Carbon dioxide (CO2)

Dry chemical

Unsuitable extinguishing

media

: None known.

Specific hazards during fire

fighting

: Exposure to combustion products may be a hazard to health.

Hazardous combustion prod-

ucts

Carbon oxides

Silicon oxides Formaldehyde

Specific extinguishing meth-

ods

: Use extinguishing measures that are appropriate to local cir-

cumstances 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 nec-

essary.

Use personal protective equipment.

#### **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emer-

gency procedures

: Follow safe handling advice and personal protective equip-

ment recommendations.

1.6



## SYLGARD(R) 184 SILICONE ELASTOMER KIT (BASE information is below)

Version Revision Date: SDS Number: Date of last issue: 11/23/2015

802554-00007

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

Date of first issue: 11/20/2014

barriers).

Retain and dispose of contaminated wash water.

Local authorities should be advised if significant spillages

cannot be contained.

Methods and materials for containment and cleaning up

12/03/2015

: Soak up with inert absorbent material.

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 absor-

bent.

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 deter-

mine 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	Control parame-	Basis
		(Form of	ters / Permissible	
		exposure)	concentration	
Ethylbenzene	100-41-4	TWA	20 ppm	ACGIH
		TWA	100 ppm	OSHA Z-1
			435 mg/m3	
		TWA	100 ppm	NIOSH REL



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 11/23/2015

 1.6
 12/03/2015
 802554-00007
 Date of first issue: 11/20/2014

		435 mg/m3	
	ST	125 ppm	NIOSH REL
		545 mg/m3	

#### **Biological occupational exposure limits**

Ingredients	CAS-No.	Control parameters	Biological specimen	Sam- pling time	Permissible concentration	Basis
Ethylbenzene	100-41-4	Sum of mandelic acid and phenyl gly- oxylic acid	Urine	End of shift (As soon as possible after exposure ceases)	0.15 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 re-

quire 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) or contact

the Dow Corning customer service group.

#### **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : liquid



Version Revision Date: SDS Number: Date of last issue: 11/23/2015 1.6 12/03/2015 802554-00007 Date of first issue: 11/20/2014

Color : colorless

Odor : slight

Odor Threshold : No data available

pH : No data available

Melting point/freezing point : No data available

Initial boiling point and boiling

range

: > 100 °C

Flash point : 121.1 °C

Method: Pensky-Martens 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 : 1.11

Solubility(ies)

Water solubility : No data available

Partition coefficient: n-

octanol/water

: No data available

Autoignition temperature : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, kinematic : 5000 cSt

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**



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 11/23/2015

 1.6
 12/03/2015
 802554-00007
 Date of first issue: 11/20/2014

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reac-

tions

: Use at elevated temperatures may form highly hazardous

compounds.

Can react with strong oxidizing agents.

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

#### Respiratory or skin sensitization

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



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 11/23/2015

 1.6
 12/03/2015
 802554-00007
 Date of first issue: 11/20/2014

#### **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

Species: Mouse

Application Route: Inhalation Method: OECD Test Guideline 486

Result: negative

#### Carcinogenicity

Not classified based on available information.

#### **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.

IARC Group 2B: Possibly carcinogenic 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 carcino-

gen 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.

#### Reproductive toxicity

Not classified based on available information.

#### Ingredients:



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 11/23/2015

 1.6
 12/03/2015
 802554-00007
 Date of first issue: 11/20/2014

Ethylbenzene:

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

Species: Rat

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.

### Ingredients: Ethylbenzene:

Routes of exposure: inhalation (vapor) Target Organs: Auditory system

Assessment: Shown to produce significant health effects in animals at concentrations of >0.2 to

1 mg/l/6h/d.

#### Repeated dose toxicity

#### **Ingredients:**

#### Ethylbenzene: Species: Rat. female

Species: Rat, female LOAEL: 75 ppm

Application Route: inhalation (vapor)

Exposure time: 104 Weeks

#### **Aspiration toxicity**

Not classified based on available information.

### Ingredients: Ethylbenzene:

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

#### **SECTION 12. ECOLOGICAL INFORMATION**

#### **Ecotoxicity**

### Ingredients: Ethylbenzene:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 4.2 mg/l



Version Revision Date: SDS Number: Date of last issue: 11/23/2015 1.6 12/03/2015 802554-00007 Date of first issue: 11/20/2014

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 (Chron-

ic toxicity)

: NOEC (Ceriodaphnia dubia (water flea)): 0.96 mg/l

Exposure time: 7 d

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

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.



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 11/23/2015

 1.6
 12/03/2015
 802554-00007
 Date of first issue: 11/20/2014

Contaminated packaging : Empty containers should be taken to an approved waste han-

dling site for recycling or disposal.

If not otherwise specified: Dispose of as unused product.

#### **SECTION 14. TRANSPORT INFORMATION**

#### **International Regulation**

#### **UNRTDG**

Not regulated as a dangerous good

#### **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**

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

#### **CERCLA Reportable Quantity**

Ingredients	CAS-No.	Component RQ	Calculated product RQ
		(lbs)	(lbs)
Ethylbenzene	100-41-4	1000	*
Xylene	1330-20-7	100	20408

<sup>\*:</sup> Calculated RQ exceeds reasonably attainable upper limit.

#### SARA 304 Extremely Hazardous Substances Reportable Quantity



Version Revision Date: SDS Number: Date of last issue: 11/23/2015 1.6 12/03/2015 802554-00007 Date of first issue: 11/20/2014

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

SARA 311/312 Hazards : No SARA Hazards

SARA 302 : No chemicals in this material are subject to the reporting re-

quirements of SARA Title III, Section 302.

SARA 313 : The following components are subject to reporting levels es-

tablished by SARA Title III, Section 313:

Ethylbenzene 100-41-4 0.19 %

**US State Regulations** 

Pennsylvania Right To Know

Dimethyl Siloxane, Dimethylvinylsiloxyterminated

Dimethylvinylated and trimethylated silica

68988-89-6

50 - 70 %

68988-89-6

30 - 50 %

 Dimetrylvinylated and trimetrylated silica
 68988-89-6
 30 - 50 %

 Xylene
 1330-20-7
 0.1 - 1 %

 Ethylbenzene
 100-41-4
 0.1 - 1 %

**New Jersey Right To Know** 

Dimethyl Siloxane, Dimethylvinylsiloxy- 68083-19-2 50 - 70 %

terminated

Dimethylvinylated and trimethylated silica 68988-89-6 30 - 50 % 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

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

NZIoC : All ingredients listed or exempt.

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.

PICCS : All ingredients listed or exempt.

KECI : All ingredients listed, exempt or notified.

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

inventory listing.

IECSC : All ingredients listed or exempt.

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).



Version Revision Date: SDS Number: Date of last issue: 11/23/2015

802554-00007

AICS : All ingredients listed or exempt.

TCSI : All ingredients listed or exempt.

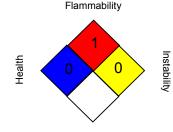
#### **SECTION 16. OTHER INFORMATION**

12/03/2015

#### **Further information**

### NFPA:

1.6



Special hazard.

#### HMIS III:

HEALTH	0
FLAMMABILITY	1
PHYSICAL HAZARD	0

Date of first issue: 11/20/2014

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 Lim-

its 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

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 11/23/2015

 1.6
 12/03/2015
 802554-00007
 Date of first issue: 11/20/2014

Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR -No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ -Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB -Very Persistent and Very Bioaccumulative

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 Agen-

cy, http://echa.europa.eu/

Revision Date : 12/03/2015

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

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