



CARBINOL (HYDROXYL) TERMINATED POLYDIMETHYLSILOXANE

Safety Data Sheet DMS-C16

Date of issue: 29/10/2014

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Version: 1.1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form	: Substance
Physical state	: Liquid
Substance name	: CARBINOL (HYDROXYL) TERMINATED POLYDIMETHYLSILOXANE
Product code	: DMS-C16
Synonyms	: HYDROXY TERMINATED POLYDIMETHYLSILOXANE; POLY(DIMETHYLSILOXANE), HYDROXYETHOXYPROPYL TERMINATED
Chemical family	: ORGANOSILOXANE
REACH authorisation exemptions	: Exempted from REACH registration

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Use of the substance/mixture : Chemical intermediate

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

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1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

EUH-statements : EUH210 - Safety data sheet available on request.

2.3. Other hazards

Contains PBT/vPvB substances \geq 0.1% assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type	: Polymer
Name	: CARBINOL (HYDROXYL) TERMINATED POLYDIMETHYLSILOXANE
CAS-No.	: 104780-66-7

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hydroxy terminated polydimethylsiloxane	(CAS-No.) 104780-66-7	> 97	Not classified
Octamethylcyclotetrasiloxane substance listed as REACH Candidate (Octamethylcyclotetrasiloxane (D4))	(CAS-No.) 556-67-2 (EC-No.) 209-136-7	< 3	Repr. 2, H361f Aquatic Chronic 4, H413

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not available show packaging or label.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice.
- First-aid measures after skin contact : Wash with plenty of water/.... Get medical advice/attention.
- First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
- First-aid measures after ingestion : Never give anything by mouth to an unconscious person. Get medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/effects after inhalation : No information available.
- Symptoms/effects after skin contact : May cause skin irritation.
- Symptoms/effects after eye contact : May cause eye irritation.
- Symptoms/effects after ingestion : No information available.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Water spray. Water fog. Foam. Carbon dioxide. Dry chemical.
- Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Avoid all eye and skin contact and do not breathe vapour and mist.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Protective equipment : Wear protective equipment as described in Section 8.
- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : For further information refer to section 8: "Exposure controls/personal protection". Equip cleanup crew with proper protection. Do not attempt to take action without suitable protective equipment.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

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Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it. Sweep or shovel spills into appropriate container for disposal.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid all eye and skin contact and do not breathe vapour and mist.
Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed. Store in a cool area. Store in a dark area.
Incompatible materials : Oxidizing agent.
Storage area : Store in a well-ventilated place. Store away from heat.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls:

Provide local exhaust or general room ventilation.

Personal protective equipment:

Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Hand protection:

Neoprene or nitrile rubber gloves

Eye protection:

Chemical goggles. Contact lenses should not be worn

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified organic vapor (black cartridge) respirator.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Clear liquid.
Molecular mass : 600 - 850 g/mol
Colour : No data available
Odour : No data available
Odour threshold : No data available
Refractive index : 1.416
pH : No data available
Relative evaporation rate (butylacetate=1) : No data available
Melting point : < -40 °C
Freezing point : No data available
Boiling point : > 205 °C
Flash point : > 110 °C
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : No data available

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Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 0.97
% Volatiles	: < 5 %
Solubility	: Insoluble in water.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: 50 - 65 cSt
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Heat. Open flame. Sparks.

10.5. Incompatible materials

Oxidizing agent.

10.6. Hazardous decomposition products

Organic acid vapors. Silicon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Octamethylcyclotetrasiloxane (556-67-2)

LD50 oral rat	1540 mg/kg RTECS Number: GZ4397000
LD50 dermal rat	1770 mg/kg
LD50 dermal rabbit	794 µl/kg
LC50 inhalation rat (mg/l)	36 g/m ³ (Exposure time: 4 h)
ATE CLP (oral)	1540 mg/kg bodyweight
ATE CLP (dermal)	1770 mg/kg bodyweight
ATE CLP (vapours)	36 mg/l/4h
ATE CLP (dust,mist)	36 mg/l/4h

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Symptoms/effects after inhalation	: No information available.
Symptoms/effects after skin contact	: May cause skin irritation.
Symptoms/effects after eye contact	: May cause eye irritation.
Symptoms/effects after ingestion	: No information available.

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SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity : Not classified

Chronic aquatic toxicity : Not classified

Octamethylcyclotetrasiloxane (556-67-2)

LC50 fish 1 > 500 mg/l (Exposure time: 96 h - Species: Brachydanio rerio)

LC50 fish 2 > 1000 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Octamethylcyclotetrasiloxane (556-67-2)

BCF fish 1 12400

Log Pow 5.1

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Component

Octamethylcyclotetrasiloxane (556-67-2) This substance/mixture meets the PBT criteria of REACH regulation, annex XIII
This substance/mixture meets the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations : Do not dispose of waste into sewer.

Product/Packaging disposal recommendations : Incinerate. Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

14.1. UN number

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : Not applicable

UN-No. (IMDG) : Not applicable

UN-No. (IATA) : Not applicable

UN-No. (ADN) : Not applicable

UN-No. (RID) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable

Proper Shipping Name (IMDG) : Not applicable

Proper Shipping Name (IATA) : Not applicable

Proper Shipping Name (ADN) : Not applicable

Proper Shipping Name (RID) : Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

ADN

Transport hazard class(es) (ADN) : Not applicable

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RID

Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable
Packing group (ADN) : Not applicable
Packing group (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

No data available

- Transport by sea

No data available

- Air transport

No data available

- Inland waterway transport

No data available

- Rail transport

No data available

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

CARBINOL (HYDROXYL) TERMINATED POLYDIMETHYLSILOXANE is not on the REACH Candidate List

Contains a substance on the REACH candidate list in concentration $\geq 0.1\%$ or with a lower specific limit: Octamethylcyclotetrasiloxane (D4) (EC 209-136-7, CAS 556-67-2)

CARBINOL (HYDROXYL) TERMINATED POLYDIMETHYLSILOXANE is not on the REACH Annex XIV List

CARBINOL (HYDROXYL) TERMINATED POLYDIMETHYLSILOXANE is not subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

CARBINOL (HYDROXYL) TERMINATED POLYDIMETHYLSILOXANE is not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC

% Volatiles : < 5 %

15.1.2. National regulations

Germany

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

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NIET-limitatieve lijst van voor de voortplanting : The substance is not listed
giftige stoffen – Ontwikkeling

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Indication of changes:

Applied changes to sections 4, 7.1-7.2 and 8.1. Added statement to sections 13 and 6.3.

Abbreviations and acronyms:

	Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose; LC: Lethal Concentration; ATE: Acute Toxicity Estimates; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; TG: Test Guideline; NIOSH: National Institute for Occupational Safety and Health; IARC: International Agency for Research on Cancer; NTP: National Toxicology Program; HMIS: Hazardous Material Information System; CAS No.: Chemical Abstract Service Registration Number; EC No.: European Commission Registration Number; EC Index No.: European Commission Index Number; OECD: The Organisation for Economic Co-operation and Development; GHS: The Globally Harmonized System of Classification and Labelling; APF: Assigned Protection Factor
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Other information : Prepared by safety and environmental affairs.

Full text of H- and EUH-statements:

Aquatic Chronic 4	Hazardous to the aquatic environment — Chronic Hazard, Category 4
Repr. 2	Reproductive toxicity, Category 2
H361f	Suspected of damaging fertility.
H413	May cause long lasting harmful effects to aquatic life.
EUH210	Safety data sheet available on request.

SDS EU (REACH Annex II) - Custom

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