

Safety Data Sheet

gpsilicones.com



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1 – PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Identifiers

PRODUCT NAME: GP-49
PRODUCT NUMBER: C-9069-BULK
DESCRIPTION: DIMETHYLDIETHOXYSILANE
CAS NUMBER: 78-62-6
EC NUMBER: 201-127-6

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

No further relevant information available.

USE OF SUBSTANCE: Industrial / Chemical intermediate

1.3 Company Identifiers

MANUFACTURER: Genesee Polymers Corporation
G-4099 S. Dort Hwy.
Burton, MI 48529
Tel (810) 715-5018 Fax (810) 742-8581
Email: cpiskoti@gpsilicones.com

1.4 Emergency Contact Information

24 HR. EMERGENCY PHONES: CHEM*TEL (800) 255-3924 (Domestic) / (813) 248-0585 (International)
Contract Number: MIS0002539

2 – HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Classifications listed also are applicable to the OSHA GHS Hazard Communication Standard (29CFR1910.1200).

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

R36/38 Irritating to eyes and skin.

R11: Highly flammable.

Information concerning particular hazards for human and environment:

Not Applicable

2.2 GHS Label elements, including precautionary statements

Labelling according to Regulation (EC) No 1272/2008

The product is additionally classified and labelled according to the Globally Harmonized System within the United States. (GHS)
The substance is classified and labelled according to the CLP regulation.

PICTOGRAMS:



SIGNAL WORD:

Danger

HAZARD DETERMINING COMPONENTS OF LABELLING:

Dimethyldiethoxysilane

HAZARD STATEMENTS

H225: Highly flammable liquid and vapour.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

PRECAUTIONARY STATEMENTS

P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking.

P280: Wear protective gloves/protective clothing/eye protection.

P264: Wash thoroughly after handling.

P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P370+P378: In case of fire: Use foam, powder or carbon dioxide for extinction.

P403+P235: Store in a well ventilated place. Keep cool.

HAZARD DESCRIPTION:

WHMIS-SYMBOLS:

B2-Flammable liquid.

D2B-Toxic material causing other toxic effects.

NFPA-ratings (scale 0 – 4)

Health	2
Flammability	3
Reactivity	1

HMIS-ratings (scale 0 – 4)

Health	2
Flammability	3
Reactivity	1
Personal Protection	G

HMIS LONG TERM HEALTH SUBSTANCES

Substance is not listed.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Results of PBT and vPvB assessment:

PBT: Not applicable

vPvB: Not applicable

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3 – HAZARDS IDENTIFICATION

3.1 Substances

Description: diethoxy(dimethyl)silane
CAS-No.: 78-62-6
EC-No.: 201-127-6

Hazardous components:

COMPONENT	CLASSIFICATION	CONCENTRATION
Impurities and stabilising additives: Ethanol CAS: 64-17-5 EINECS: 200-578-6 Index number: 603-002-00-5	FLAM. LIQ. 2 H225 EYE IRRIT. 2, H319	< 1%

4 – FIRST-AID MEASURES

4.1 Description of first aid measures

GENERAL INFORMATION: Immediately remove any clothing soiled by the product. Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident. Take affected persons out into fresh air.

BREATHING (INHALATION): Supply fresh air; consult doctor in case of complaints. Provide oxygen treatment if affected person has difficulty breathing. In case of irregular breathing or respiratory arrest provide artificial respiration.

SKIN (DERMAL): Immediately remove any clothing soiled by the product.
Immediately wash with soap and water and rinse thoroughly.
If skin irritation is experienced, consult a doctor.

EYES: Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

SWALLOWING (INGESTION): Rinse out mouth and then drink plenty of water.
Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed

Gastric or intestinal disorders when ingested.

Coughing.

Irritant to skin and mucous membranes.

Irritant to eyes.

Difficulty breathing

Nausea in case of ingestion.

HAZARDS: Danger of impaired breathing.
Vapours may cause drowsiness and dizziness.

4.3 Indication of any immediate medical attention and special treatment needed

If necessary oxygen respiration treatment.

5 – FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing agents:

Alcohol resistant foam.

Fire-extinguishing powder.

Carbon dioxide.

Gaseous extinguishing agents.

For safety reasons unsuitable extinguishing agents: Water.

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5.2 Special hazards arising from the substance or mixture:

Formation of toxic gases is possible during heating or in case of fire.

5.3 Advice for firefighters

Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

Additional information

Eliminate all ignition sources if safe to do so.

Cool endangered receptacles with water spray.

6 – ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Particular danger of slipping on leaked/spilled product.

Ensure adequate ventilation.

Keep away from ignition sources.

Protect from heat.

For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.

6.2 Environmental precautions:

Do not allow to enter sewers/surface or ground water.

Inform respective authorities in case of seepage into water course or sewage system.

6.3 Methods and material for containment and clean up

Absorb with non-combustible liquid-binding material (sand, diatomite, acid binders, universal binders.)

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Send for recovery or disposal in suitable receptacles.

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment

See Section 13 for disposal information.

7 – HANDLING and STORAGE

7.1 Precautions for safe handling

Use only in well ventilated areas.

Avoid splashes or spray in enclosed areas.

Prevent formation of aerosols.

Rags, metal wools / cuttings / shavings and waste papers soaked with product must be placed in a sealed metal container rated for flammable waste.

Information about fire – and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Fumes can combine with air to form an explosive mixture.

Flammable gas-air mixtures may form in empty receptacles.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:

Store in a cool, dry place.

Provide ventilation for receptacles.

Avoid storage near extreme heat, ignition sources or open flame.

Information about storage in one common storage facility:

Store away from foodstuffs.
Protect from humidity and water.
Do not store together with oxidising and acidic materials.

Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.
Keep container tightly sealed.

7.3 Specific end use(s)

No further relevant information available.

8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see item 7

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

Ingredient	CAS number	Data type	Value
None	N/A	N/A	N/A

DNELs No further relevant information available.

PNECs No further relevant information available.

Ingredients with biological limit value

Ingredient	CAS number	Data type	Value
None	N/A	N/A	N/A

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Use only in well ventilated areas

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Respiratory protection:

Use suitable respiratory protective device when high concentrations are present.

Use suitable respiratory protective device when aerosol or mist is formed.

For large spills, respiratory protection may be advisable.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

Safety glasses

Body protection:

Protective work clothing

Limitation and supervision of exposure into the environment

No further relevant information available.

Risk management measures

See section 7 for additional information.

No further relevant information available.

9 – PHYSICAL / CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties**General Information****Appearance:**

Form: Liquid.

Colour: Clear

Odour: Not determined.

Odour threshold: Not determined.

pH value: Not determined.

Change in condition:

Melting point/Melting range: Not determined.

Boiling point/Boiling range: 237 ° F / 114 ° C

Flash point: 11 ° C (52 ° F)

Flammability (solid, gaseous): Not applicable.

Auto/Self-ignition temperature: Not determined.

Decomposition temperature: Not determined.

Self-igniting: Not determined.

Danger of explosion: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

Explosion limits:

Lower: Not determined.

Upper: Not determined.

Vapor pressure: 1.32 hPa (1 mm Hg)

Density at 25 °C: 0.86 g/cm³ (7.177 lbs/gal)

Relative density: Not determined.

Vapour density at 20 °C 5.11 g/cm³ (Air = 1)

Evaporation rate: Not determined.

Solubility in / Miscibility with

Water: Insoluble.

Partition coefficient

(n-octanol/water) Not determined.

Viscosity:

Dynamic: Not determined.

Kinematic: Not determined.

VOC content: 0.1%

9.2 Other information No further relevant information available.

10 – STABILITY and REACTIVITY

10.1 Reactivity

10.2 Chemical stability

Thermal decomposition / conditions to be avoided

Keep away from heat and direct sunlight.

10.3 Possibility of hazardous reactions

Flammable.

Reacts with oxidizing agents.

Reacts with strong acids.

Reacts with water.

Used empty containers may contain product gases which form explosive mixtures with air.

Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomised.

Toxic fumes may be released if heated above the decomposition point.

10.4 Conditions to avoid

Moisture

Keep ignition sources away - Do not smoke.

Store away from oxidizing agents.

Keep away from heat and direct sunlight.

10.5 Incompatible materials:

No further relevant information available.

10.6 Hazardous decomposition products:

Carbon monoxide and carbon dioxide.

Danger of forming toxic pyrolysis products.

11 – TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity (LD/LC50 values):

Ingredient	CAS Number	Data Type	Value
diethoxy(dimethyl)silane	78-62-6	Oral LD50	9280 mg/kg (rat)

Primary irritant effect:

On the skin: Irritant to skin and mucous membranes.

On the eye: Irritating effect.

Sensitisation: No sensitising effects known.

Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version. Irritant

12 – ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability No further relevant information available.

12.3 Bioaccumulative potential No further relevant information available.

12.4 Mobility in soil No further relevant information available.

Additional ecological information:

General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects No further relevant information available.

13 –DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Recommendation

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous. Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

14 – TRANSPORTATION INFORMATION

14.1 Transport hazard information

DOT

UN Number: UN2380
Proper shipping name: DIMETHYLDIETHOXYSILANE
Hazard class: 3 Flammable liquids.
Label: 3
Packing group: II
Special instructions: Limited Quantity for packages less than 30 kg (66 lb) and inner packagings less than 1L (0.3 gal).



ADR

UN Number: UN2380
Proper shipping name: 2380 DIMETHYLDIETHOXYSILANE
Hazard class: 3 (F1) Flammable liquids.
Label: 3
Packing group: II
Limited quantities: 1L
Excepted quantities: Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml
Transport category: 2
Tunnel restriction code: D/E



IMDG

UN Number: UN2380
Proper shipping name: DIMETHYLDIETHOXYSILANE
Hazard class: 3 Flammable liquids.
Label: 3
Packing group: II
Limited quantities: II

Excepted quantities: Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml



IATA
UN Number: UN2380
Proper shipping name: DIMETHYLDIETHOXYSILANE
Hazard class: 3 Flammable liquids.
Label: 3
Packing group: II



14.2 Environmental hazards:

Marine pollutant: No

14.3 Special precautions for user: Warning: Flammable liquids.

Danger code: 33

EMS Number: F-E, S-D

Transport in bulk according to AnnexII of MARPOL73/78 and the IBC Code: Not applicable

UN "Model Regulation": UN2380, DIMETHYLDIETHOXYSILANE, 3, II

15 - REGULATIONS

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

United States (USA)

SARA

Section 355 (extremely hazardous substances):

Substance is not listed.

Section 313 (Specific toxic chemical listings):

Substance is not listed.

TSCA (Toxic Substances Control Act):

Substance is listed

Proposition 65 (California)

Chemicals known to cause cancer:

Ethanol - listing refers specifically to alcoholic beverage consumption and is not applicable for product. Present in trace quantities.
64-17-5 ethanol

Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

Chemicals known to cause developmental toxicity:

Ethanol - listing refers specifically to alcoholic beverage consumption and is not applicable for product. Present in trace quantities.
64-17-5 ethanol

Carcinogenic Categories

EPA (Environmental Protection Agency)

Substance is not listed.

IARC (International Agency for Research on Cancer):

Substance is not listed.

TLV (Threshold Limit Value established by ACGIH):

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Substance is not listed.

NIOSH-Ca (National Institute for Occupational Safety and Health):

Substance is not listed.

Canada

Canadian Domestic Substances list:

Substance is listed.

Canadian Ingredient Disclosure list (limit 0.1%):

None of the ingredients are listed.

Canadian Ingredient Disclosure list (limit 1%):

Substance is listed.

Other regulations, limitations and prohibitive regulations

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

Substances of very high concern (SVHC) according to REACH, Article 57:

Substance is not listed.

15.2 Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

16 – OTHER INFORMATION

We believe the recommendations and technical information contained herein to be accurate. However, they are given without warranty or guarantee, expressed or implied, and we assume no responsibility for losses or damages, direct or indirect, as a result of their use.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (Canada)

WHMIS: Workplace Hazardous Materials Information System (Canada)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50 Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 2 Flammable liquids, Hazard Category 2

Skin irrit. 2 Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2 Serious eye damage/eye irritation, Hazard Category 2

Sources

SDS Prepared by:

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