

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Revision date: 16/10/2018 Date of issue: 19/08/2013

Version: 3.1

SECTION 1: Identification of the Substance/mixture and of the Company/Undertaking

1.1. Product Identifier

Product form Mixture
Product Name R-2940 Part A

Other means of identification Thermally Conductive Silicone

1.2. Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

1.2.1. Relevant Identified Uses

Industrial/Professional use spec Industrial.

Use of the Substance/Mixture For professional use only.

1.2.2. Uses Advised Against

No additional information available

1.3. Details of the Supplier of the Safety Data Sheet

NuSil Technology LLC 1050 Cindy Lane

Carpinteria, California 93013

USA

(805) 684-8780

ehs@nusil.com

www.nusil.com

1.4. Emergency Telephone Number

Emergency Number : 800-424-9300 CHEMTREC (in US); +1 703-527-3887 CHEMTREC

(International and Maritime)

SECTION 2: Hazards Identification

2.1. Classification of the Substance or Mixture

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

Not classified

2.2. Label Elements

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

No labelling applicable

2.3. Other Hazards

Other Hazards Not Contributing Exposure may aggravate those with pre-existing eye, skin, or

to the Classification respiratory conditions.

SECTION 3: Composition/Information on Ingredients

3.1. Substances

Not applicable

3.2. Mixture

Name	Product Identifier	%	Classification According to	
			Regulation (EC) No. 1272/2008 [CLP]	

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Name	Product Identifier	%	Classification According to Regulation (EC) No. 1272/2008 [CLP]
Aluminum oxide (Al2O3)	(CAS-No.) 1344-28-1 (EC-No.) 215-691-6	80 - 90	Not classified

SECTION 4: First Aid Measures

Description of First-aid Measures 4.1.

First-Aid Measures General Never give anything by mouth to an unconscious person. If you

feel unwell, seek medical advice (show the label if possible).

First-Aid Measures After Remove to fresh air and keep at rest in a position comfortable Inhalation

for breathing. Obtain medical attention if breathing difficulty

persists.

First-Aid Measures After Skin Gently wash with plenty of soap and water. Obtain medical

attention if irritation develops or persists. Contact

First-Aid Measures After Eye Rinse cautiously with water for at least 15 minutes. Remove

contact lenses, if present and easy to do so. Continue rinsing. Contact

Obtain medical attention if irritation persists.

First-Aid Measures After Do NOT induce vomiting. Rinse mouth. Immediately call a

Ingestion POISON CENTER or doctor/physician.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

Symptoms/Effects None expected under normal conditions of use.

Symptoms/Effects After May cause respiratory irritation.

Inhalation

Symptoms/Effects After Skin May cause skin irritation.

Contact

Symptoms/Effects After Eye May cause eye irritation.

Contact

Symptoms/Effects After Ingestion is likely to be harmful or have adverse effects.

Ingestion

Chronic Symptoms None expected under normal conditions of use.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If medical advice is needed, have product container or label at hand.

SECTION 5: Firefighting Measures

5.1. **Extinguishing Media**

Suitable Extinguishing Media Use extinguishing media appropriate for surrounding fire. Unsuitable Extinguishing Media Do not use a heavy water stream. Use of heavy stream of water

may spread fire. Application of water stream to hot product

may cause frothing and increase fire intensity.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard Not considered flammable but will burn at high temperatures.

Explosion Hazard Product is not explosive.

Reactivity Hazardous reactions will not occur under normal conditions.

Hazardous Decomposition Carbon oxides (CO, CO₂). Silicon oxides.

Products in Case of Fire

5.3. **Advice for Firefighters**

Precautionary Measures Fire Exercise caution when fighting any chemical fire.

Firefighting Instructions Use water spray or fog for cooling exposed containers. Prevent

fire fighting water from entering the environment.

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Protection During Firefighting Do not enter fire area without proper protective equipment,

including respiratory protection.

SECTION 6: Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures Avoid all contact with skin, eyes, or clothing. Avoid breathing

(vapor, mist, spray).

6.1.1. For Non-Emergency Personnel

Protective Equipment Use appropriate personal protective equipment (PPE).

Emergency Procedures Evacuate unnecessary personnel.

6.1.2. For Emergency Responders

Protective Equipment Equip cleanup crew with proper protection.

Emergency Procedures Upon arrival at the scene, a first responder is expected to

recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of

trained personnel as soon as conditions permit.

6.2. Environmental Precautions

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

6.3. Methods and Materials for Containment and Cleaning Up

For Containment Contain any spills with dikes or absorbents to prevent migration

and entry into sewers or streams.

Methods For Cleaning Up Clean up spills immediately and dispose of waste safely. Spills

should be contained with mechanical barriers. Transfer spilled

material to a suitable container for disposal. Contact

competent authorities after a spill.

6.4. Reference to Other Sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: Handling And Storage

7.1. Precautions for Safe Handling

Hygiene Measures Handle in accordance with good industrial hygiene and safety

procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again

when leaving work.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures Comply with applicable regulations.

Storage Conditions Store in a dry, cool and well-ventilated place. Keep container

closed when not in use. Keep/Store away from direct sunlight,

extremely high or low temperatures and incompatible

materials.

Incompatible Materials Strong acids, strong bases, strong oxidizers.

7.3. Specific End Use(S)

To provide heat transfer between electrical/electronic components and their heat sinks. For professional use only.

SECTION 8: Exposure Controls/Personal Protection

8.1. Control Parameters

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	6 (REACH) with its amendment Regulation (EU) 2015/830		
Aluminum oxide (Al2O3	· ,	1	
Austria	MAK (mg/m³)	5 mg/m³ (respirable fraction, smoke	
Austria	MAK Short time value (mg/m³)	10 mg/m³ (respirable fraction, smoke)	
Belgium	Limit value (mg/m³)	1 mg/m³	
Croatia	GVI (granična vrijednost izloženosti) (mg/m³)	10 mg/m³ (total dust) 4 mg/m³ (respirable dust)	
Denmark	Grænseværdie (langvarig) (mg/m³)	5 mg/m³ (total) 2 mg/m³ (respirable)	
Estonia	OEL TWA (mg/m³)	10 mg/m³ (total dust) 4 mg/m³ (respirable dust)	
France	VME (mg/m³)	10 mg/m³	
Greece	OEL TWA (mg/m³)	10 mg/m³ (inhalable fraction) 5 mg/m³ (respirable fraction)	
Hungary	AK-érték	6 mg/m³ (respirable dust)	
Latvia	OEL TWA (mg/m³)	6 mg/m³ (disintegration aerosol)	
Lithuania	IPRV (mg/m³)	5 mg/m³ (inhalable fraction) 2 mg/m³ (respirable fraction)	
Norway	Grenseverdier (AN) (mg/m³)	10 mg/m³ (equal to the limit value for Nuisance dust)	
Norway	Grenseverdier (Korttidsverdi) (mg/m3)	15 mg/m³ (equal to the limit value for Nuisance dust)	
Poland	NDS (mg/m³)	2,5 mg/m³ (inhalable fraction) 1,2 mg/m³ (respirable fraction)	
Portugal	OEL TWA (mg/m³)	10 mg/m³ (particulate matter containing no Asbestos and <1% Crystalline silica)	
Portugal	OEL chemical category (PT)	A4 - Not Classifiable as a Human Carcinogen	
Romania	OEL TWA (mg/m³)	2 mg/m³ (regulated under Aluminium oxide-aerosols) 3 mg/m³ (dust) 1 mg/m³ (fume)	
Romania	OEL STEL (mg/m³)	5 mg/m³ (regulated under Aluminium oxide-aerosols) 10 mg/m³ (dust) 3 mg/m³ (fume)	
Slovakia	NPHV (priemerná) (mg/m³)	1,5 mg/m³ (fume) 1,5 mg/m³ 0,1 mg/m³ (regulated under .gammaAluminum oxide-respirable fraction)	
Spain	VLA-ED (mg/m³)	10 mg/m³	
Sweden	nivågränsvärde (NVG) (mg/m³)	5 mg/m³ (total dust) 2 mg/m³ (respirable dust)	
Switzerland	KZGW (mg/m³)	24 mg/m³ (respirable dust, smoke)	
Switzerland	MAK (mg/m³)	3 mg/m³ (respirable dust, smoke)	
Switzerland	Switzerland - BLV	60 µg/g creatinine Parameter:	

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		Aluminum - Medium: urine - Sampling time: no restrictions
United Kingdom	WEL TWA (mg/m³)	10 mg/m³ inhalable dust 4 mg/m3 respirable dust

8.2. **Exposure Controls**

Appropriate Engineering Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be Controls

available in the immediate vicinity of any potential exposure.

Ensure all national/local regulations are observed.

Protective goggles. Gloves. Protective clothing. Personal Protective Equipment







Materials for Protective Clothing

Chemically resistant materials and fabrics. Hand Protection Wear chemically resistant protective gloves.

Eve Protection Skin and Body Protection

Chemical goggles or safety glasses. Wear suitable protective clothing.

Respiratory Protection Use a NIOSH-approved respirator or self-contained breathing

apparatus whenever exposure may exceed established

Occupational Exposure Limits.

Other Information When using, do not eat, drink or smoke.

SECTION 9: Physical and Chemical Hazards

9.1. Information on Basic Physical and Chemical Properties

Physical State Liquid Colour Grey Odour Odourless

Odour Threshold No data available Hq No data available **Evaporation Rate** No data available Melting Point No data available Freezing Point No data available **Boiling Point** No data available Flash Point > 135 °C (> 275 °F) **Auto-Ignition Temperature** No data available **Decomposition Temperature** No data available Flammability (Solid, Gas) No data available Vapour Pressure No data available Relative Vapour Density At 20 °C No data available Relative Density No data available

Solubility No data available Partition Coefficient n-Octanol/Water No data available Viscosity, Kinematic No data available Viscosity, Dynamic No data available **Explosive Properties** No data available Oxidising Properties No data available **Explosive Limits** No data available

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9.2. Other Information

VOC content 10 - 15 %

SECTION 10: Stability and Reactivity

10.1. Reactivity

Hazardous reactions will not occur under normal conditions.

10.2. Chemical Stability

Stable at standard temperature and pressure.

10.3. Possibility Of Hazardous Reactions

Hazardous polymerization will not occur.

10.4. Conditions To Avoid

Direct sunlight. Extremely high or low temperatures. Ignition sources. Incompatible materials.

10.5. Incompatible Materials

Strong acids, strong bases, strong oxidizers.

10.6. Hazardous Decomposition Products

Carbon oxides (CO, CO₂). Silicon oxides.

SECTION 11: Toxicological Information

11.1. Information On Toxicological Effects

Acute Toxicity Not classified

/ COTO TOXICITY	1101 6103311100	
Aluminum oxide (Al2O3) (1344-28-1)		
LD50 Oral Rat	> 15900 mg/kg	
LC50 Inhalation Rat	> 2,3 mg/l/4h	
Skin Corrosion/Irritation	Not classified	
Eye Damage/Irritation	Not classified	
Respiratory or Skin Sensitization	Not classified	

Germ Cell Mutagenicity
Carcinogenicity
Reproductive Toxicity
Specific Target Organ Toxicity
Not classified
Not classified
Not classified

(Single Exposure)

Specific Target Organ Toxicity (Repeated Not classified

Exposure)

Aspiration Hazard Not classified

Potential Adverse Human Based on available data, the classification criteria are not met.

Health Effects And Symptoms

SECTION 12: Ecological Information

12.1. Toxicity

-		
Aluminum oxide (Al2O3) (1344-28-1)		
LC50 Fish 1	14,6 mg/l	
EC50 Daphnia 1	38,2 mg/l	
NOEC (Acute)	> 50 mg/l	

12.2. Persistence and Degradability

R-2940 Part A	
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R-2940 Part A	
Persistence and Degradability	Not established.

12.3. Bioaccumulative Potential

R-2940 Part A	
Bioaccumulative potential	Not established.

12.4. Mobility in Soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other Adverse Effects

Other Information Avoid release to the environment.

SECTION 13: Disposal Considerations

13.1. Waste Treatment Methods

Product/Packaging Disposal Dispose of waste material in accordance with all local,

Recommendations regional, national, and international regulations.

Ecology - Waste Materials Avoid release to the environment.

SECTION 14: Transport Information

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

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

14.1. UN Number	
Not regulated for transport	
14.2. UN Proper Shipping Name	
Not regulated for transport	
14.3. Transport Hazard Class(Es)	
Not regulated for transport	
14.4. Packing Group	
Not regulated for transport	
14.5. Environmental Hazards	

14.6. Special Precautions For User

No additional information available

Not regulated for transport

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

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

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Aluminum oxide (Al2O3) (1344-28-1)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

15.1.2. National Regulations

No additional information available

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out

SECTION 16: Other Information

Indication of Changes

Section	Section Header	Change	Date Changed
		Modified template.	16/10/2018
1.3	Details of the supplier of the safety data sheet	Modified	26/05/2016
2	Hazards identification	Removed DSD/DPD information.	26/05/2016
3	Composition/information on ingredients	Removed not classified components and components below cutoffs. Removed DSD/DPD information.	26/05/2016
15.1	EU-Regulations	Modified	26/05/2016

Date of Preparation or Latest

16/10/2018

Revision

Data Sources

Information and data obtained and used in the authoring of this safety data sheet could come from database subscriptions,

official government regulatory body websites,

product/ingredient manufacturer or supplier specific

information, and/or resources that include substance specific data and classifications according to GHS or their subsequent

adoption of GHS.

Other Information According to Regulation (EC) No. 1907/2006 (REACH) with its

amendment Regulation (EU) 2015/830

Abbreviations and Acronyms

ACGIH - American Conference of Governmental Industrial Hygienists

ADN - European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways

ADR - European Agreement Concerning the International Carriage of Dangerous

Goods by Road

ATE - Acute Toxicity Estimate BCF - Bioconcentration Factor BFI - Biological Exposure Indices (BFI)

BOD - Biochemical Oxygen Demand CAS No. - Chemical Abstracts Service Number

CLP - Classification, Labeling and Packaging Regulation (EC) No 1272/2008

COD - Chemical Oxygen Demand EC - European Community

EC50 - Median Effective Concentration EEC - European Economic Community

EINECS - European Inventory of Existing Commercial Chemical Substances

EmS-No. (Fire) - IMDG Emergency Schedule Fire

EmS-No. (Spillage) - IMDG Emergency Schedule Spillage

EU - European Union

ErC50 - EC50 in Terms of Reduction Growth Rate

GHS - Globally Harmonized System of Classification and Labeling of Chemicals

IARC - International Agency for Research on Cancer IATA - International Air Transport Association IBC Code - International Bulk Chemical Code

IMDG - International Maritime Dangerous Goods

IPRV - Ilgalaikio Poveikio Ribinis Dydis IOELV – Indicative Occupational Exposure Limit Value

MARPOL - International Convention for the Prevention of Pollution

NDS - Najwyzsze Dopuszczalne Stezenie

NDSCh - Najwyzsze Dopuszczalne Stezenie Chwilowe NDSP - Najwyzsze Dopuszczalne Stezenie Pulapowe NOAFL - No-Observed Adverse Effect Level NOEC - No-Observed Effect Concentration

NRD - Nevirsytinas Ribinis Dydis NTP - National Toxicology Program OEL - Occupational Exposure Limits PBT - Persistent, Bioaccumulative and Toxic

PEL - Permissible Exposure Limit

pH – Potential Hydrogen REACH – Registration, Evaluation, Authorisation, and Restriction of Chemicals RID – Regulations Concerning the International Carriage of Dangerous Goods by Rail

SADT - Self Accelerating Decomposition Temperature SDS - Safety Data Sheet

STEL - Short Term Exposure Limit

TA-Luft - Technische Anleitung zur Reinhaltung der Luft TEL TRK – Technical Guidance Concentrations

ThOD – Theoretical Oxygen Demand TLM - Median Tolerance Limit

TLV - Threshold Limit Value

TPRD - Trumpalaikio Poveikio Ribinis Dydis TRGS 510 - Technische Regel für Gefahrstoffe 510 - Lagerung von Gefahrstoffen in

ortsbeweglichen Behältern

TRGS 552 – Technische Regeln für Gefahrstoffe - N-Nitrosamine TRGS 900 - Technische Regel für Gefahrstoffe 900 – Arbeitsplatzgrenzwerte

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LC50 - Median Lethal Concentration

LD50 - Median Lethal Dose LOAEL - Lowest Observed Adverse Effect Level

LOEC - Lowest-Observed-Effect Concentration

Log Koc - Soil Organic Carbon-water Partitioning Coefficient

Log Kow - Octanol/water Partition Coefficient

Log Pow - Ratio of the equilibrium concentration (C) of a dissolved substance in a two-phase system consisting of two largely immiscible solvents, in this case octanol and

water

MAK - Maximum Workplace Concentration/Maximum Permissible Concentration

TRGS 903 - Technische Regel für Gefahrstoffe 903 - Biologische Grenzwerte

TSCA - Toxic Substances Control Act TWA - Time Weighted Average VOC – Volatile Organic Compounds

VLA-EC - Valor Límite Ambiental Exposición de Corta Duración

VLA-ED - Valor Límite Ambiental Exposición Diaria

VLE – Valeur Limite D'exposition

VME – Valeur Limite De Moyenne Exposition vPvB - Very Persistent and Very Bioaccumulative

WEL – Workplace Exposure Limit WGK - Wassergefährdungsklasse

Nusil FU GHS SDS

The information provided in this Safety Data Sheet (SDS) was prepared based on data believed to be accurate as of the date of this SDS. TO THE GREATEST EXTENT PERMITTED BY LAW, NUSIL TECHNOLOGY LLC AND ITS AFFILIATED COMPANIES ("NUSIL") EXPRESSLYDISCLAIMS ANY AND ALL REPRESENTATIONS AND WARRANTIES REGARDING THE INFORMATION CONTAINED HEREIN INCLUDING, WITHOUT LIMITATION, AS TO ACCURACY, COMPLETENESS, FITNESS FOR PURPOSE OR USE, MERCHANTABILITY, NON-INFRINGEMENT, PERFORMANCE, SAFETY, SUITABILITY AND STABILITY. This SDS is intended as a guide to the appropriate use, handling, storage and disposal of the product to which it relates by properly trained personnel, and is not intended to be comprehensive. Users of NuSil's products are advised to perform their own tests and to exercise their own judgment to determine the safety, suitability and appropriate use, handling, storage and disposal of each product and product combination for their own purposes and uses. TO THE GREATEST EXTENT PERMITTED BY LAW, NUSIL DISCLAIMS LIABILITY FOR, AND BY USING NUSIL'S PRODUCTS PURCHASER AGREES THAT UNDER NO CIRCUMSTANCES SHALL NUSIL BE LIABLE FOR, SPECIAL, INDIRECT, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES OF ANY TYPE OR KIND, INCLUDING WITHOUT LIMITATION, FOR LOSS OF PROFITS, REPUTATIONAL DAMAGE, PRODUCT RECALL OR BUSINESS INTERRUPTION.



Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Revision date: 16/10/2018 Date of issue: 19/08/2013

Version: 2.1

SECTION 1: Identification of the Substance/mixture and of the Company/Undertaking

1.1. Product Identifier

Product form Mixture
Product Name R-2940 Part B

Other means of identification Thermally Conductive Silicone

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

1.2.2. Uses Advised Against

No additional information available

1.3. Details of the Supplier of the Safety Data Sheet

NuSil Technology LLC 1050 Cindy Lane

Carpinteria, California 93013

USA

(805) 684-8780 ehs@nusil.com

www.nusil.com

1.4. Emergency Telephone Number

Emergency Number : 800-424-9300 CHEMTREC (in US); +1 703-527-3887 CHEMTREC

(International and Maritime)

SECTION 2: Hazards Identification

2.1. Classification of the Substance or Mixture

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

Skin Irrit. 2 H315 Eye Irrit. 2 H319 STOT SE 3 H335

Full text of hazard classes and H-statements: see section 16

2.2. Label Elements

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

Hazard Pictograms (CLP)

GHS07

Signal Word (CLP)

Hazardous Ingredients Siloxanes and Silicones, dimethyl, methyl hydrogen

Hazard Statements (CLP) H315 - Causes skin irritation.

H319 - Causes serious eye irritation. H335 - May cause respiratory irritation.

Precautionary Statements (CLP) P261 - Avoid breathing vapors, mist, or spray

P264 - Wash hands, forearms, and exposed areas thoroughly

after handling

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P271 - Use only outdoors or in a well-ventilated area.

P280 - Wear eye protection, protective clothing, protective aloves

P302+P352 - IF ON SKIN: Wash with plenty of water

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsina.

P312 - Call a POISON CENTER or doctor if you feel unwell

P321 - Specific treatment (see Section 4 on this SDS)

P332+P313 - If skin irritation occurs: Get medical

advice/attention.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P362+P364 - Take off contaminated clothing and wash it before

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

P405 - Store locked up.

P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations

2.3. Other Hazards

Other Hazards Not Contributina to the Classification

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

SECTION 3: Composition/Information on Ingredients

Substances 3.1.

Not applicable

3.2. **Mixture**

Name	Product Identifier	%	Classification According to Regulation (EC) No. 1272/2008 [CLP]
Siloxanes and Silicones, dimethyl, methyl hydrogen	(CAS-No.) 68037-59-2	> 90	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335

Full text of H-statements: see section 16

SECTION 4: First Aid Measures

4.1. **Description of First-aid Measures**

First-Aid Measures General

First-Aid Measures After

Inhalation

Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible). Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.

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First-Aid Measures After Skin

Contact

Remove contaminated clothing. Gently wash with plenty of soap and water. Obtain medical attention if irritation develops

or persists.

First-Aid Measures After Eye

Contact

Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Obtain medical attention.

First-Aid Measures After Do NOT induce vomiting. Rinse mouth. Immediately call a

Ingestion POISON CENTER or doctor/physician.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

Symptoms/Effects Causes serious eye irritation. Causes skin irritation. May cause

May cause respiratory irritation.

respiratory irritation.

Symptoms/Effects After

Inhalation

Symptoms/Effects After Skin

Contact

Symptoms/Effects After Eye

Contact

Symptoms/Effects Affer Eye

Symptoms/Effects After

Ingestion

Chronic Symptoms

Causes skin irritation.

Redness, pain, swelling, itching, burning, tearing, and blurred

vision.

Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms None expected under normal conditions of use.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If medical advice is needed, have product container or label at hand.

SECTION 5: Firefighting Measures

5.1. Extinguishing Media

Suitable Extinguishing Media
Unsuitable Extinguishing Media

Use extinguishing media appropriate for surrounding fire. Do not use a heavy water stream. Use of heavy stream of water may spread fire. Application of water stream to hot product may cause frothing and increase fire intensity.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard Not considered flammable but will burn at high temperatures.

Explosion Hazard Product is not explosive.

Reactivity Hazardous reactions will not occur under normal conditions.

Hazardous Decomposition Carbon oxides (CO, CO₂). Silicon oxides. Products in Case of Fire

5.3. Advice for Firefighters

Precautionary Measures Fire Firefighting Instructions

Exercise caution when fighting any chemical fire.

Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire

remotely due to the risk of explosion.

Protection During Firefighting Do not enter fire area without proper protective equipment,

including respiratory protection.

Other Information Refer to Section 9 for flammability properties.

SECTION 6: Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures Avoid all contact with skin, eyes, or clothing. Avoid breathing

(vapor, mist, spray).

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6.1.1. For Non-Emergency Personnel

Protective Equipment Use appropriate personal protective equipment (PPE).

Emergency Procedures Evacuate unnecessary personnel.

6.1.2. For Emergency Responders

Protective Equipment Equip cleanup crew with proper protection.

Emergency Procedures Upon arrival at the scene, a first responder is expected to

recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of

trained personnel as soon as conditions permit.

6.2. Environmental Precautions

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

6.3. Methods and Materials for Containment and Cleaning Up

For Containment Contain any spills with dikes or absorbents to prevent migration

and entry into sewers or streams.

Methods For Cleaning Up Clean up spills immediately and dispose of waste safely. Spills

should be contained with mechanical barriers. Transfer spilled

material to a suitable container for disposal. Contact

competent authorities after a spill.

6.4. Reference to Other Sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: Handling And Storage

7.1. Precautions for Safe Handling

Hygiene Measures Handle in accordance with good industrial hygiene and safety

procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again

when leaving work.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures Comply with applicable regulations.

Storage Conditions Store in a dry, cool and well-ventilated place. Keep container

closed when not in use. Keep/Store away from direct sunlight,

extremely high or low temperatures and incompatible

materials.

Incompatible Materials Strong acids. Strong bases. Strong oxidizers.

7.3. Specific End Use(S)

To provide heat transfer between electrical/electronic components and their heat sinks. For professional use only.

SECTION 8: Exposure Controls/Personal Protection

8.1. Control Parameters

No additional information available

8.2. Exposure Controls

Appropriate Engineering

Controls

Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed.

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Personal Protective Equipment Protective goggles. Gloves. Protective clothing.







Materials for Protective Clothing

Hand Protection Eye Protection

Skin and Body Protection Respiratory Protection Chemically resistant materials and fabrics.
Wear chemically resistant protective gloves.

Chemical safety goggles.

Wear suitable protective clothing.

Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established

Occupational Exposure Limits.

SECTION 9: Physical and Chemical Hazards

9.1. Information on Basic Physical and Chemical Properties

Physical State Liquid
Colour Clear
Odour Slight

Odour Threshold No data available Hq No data available **Evaporation Rate** No data available Melting Point No data available Freezing Point No data available **Boiling Point** No data available Flash Point > 275 °C (> 527 °F) **Auto-Ignition Temperature** No data available **Decomposition Temperature** No data available Flammability (Solid, Gas) No data available Vapour Pressure No data available Relative Vapour Density At 20 °C No data available

Relative Density 1 (water = 1)

Solubility
Partition Coefficient n-Octanol/Water
Viscosity, Kinematic
Viscosity, Dynamic
Explosive Properties
Oxidising Properties
No data available

9.2. Other Information

VOC content 15 - 20 %

SECTION 10: Stability and Reactivity

10.1. Reactivity

Hazardous reactions will not occur under normal conditions.

10.2. Chemical Stability

Stable under recommended handling and storage conditions (see section 7).

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10.3. Possibility Of Hazardous Reactions

Hazardous polymerization will not occur.

10.4. Conditions To Avoid

Direct sunlight. Extremely high or low temperatures. Ignition sources. Incompatible materials.

10.5. Incompatible Materials

Strong acids. Strong bases. Strong oxidizers.

10.6. Hazardous Decomposition Products

Carbon oxides (CO, CO₂). Silicon oxides.

SECTION 11: Toxicological Information

11.1. Information On Toxicological Effects

Acute Toxicity Not classified

Skin Corrosion/Irritation Causes skin irritation.

Eye Damage/Irritation Causes serious eye irritation.

Respiratory or Skin Sensitization Not classified
Germ Cell Mutagenicity Not classified
Carcinogenicity Not classified
Reproductive Toxicity Not classified

Specific Target Organ Toxicity May cause respiratory irritation.

(Single Exposure)

Specific Target Organ Toxicity (Repeated Not classified

Exposure)

Aspiration Hazard Not classified

SECTION 12: Ecological Information

12.1. Toxicity

No additional information available

12.2. Persistence and Degradability

R-2940 Part B	•
Persistence and Degradability	Not established.

12.3. Bioaccumulative Potential

12.01 2.04.000	
R-2940 Part B	
Bioaccumulative potential	Not established.

12.4. Mobility in Soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other Adverse Effects

Other Information Avoid release to the environment.

SECTION 13: Disposal Considerations

13.1. Waste Treatment Methods

Product/Packaging Disposal Dispose of waste material in accordance with all local,

Recommendations regional, national, and international regulations.

Ecology - Waste Materials Avoid release to the environment.

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SECTION 14: Transport Information

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

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

14.1. UN Number	
Not regulated for transport	
14.2. UN Proper Shipping Name	
Not regulated for transport	
14.3. Transport Hazard Class(Es)	
Not regulated for transport	
14.4. Packing Group	
Not regulated for transport	
14.5. Environmental Hazards	
Not regulated for transport	

14.6. Special Precautions For User

No additional information 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

Contains no REACH substances with Annex XVII restrictions Contains no substance on the REACH candidate list Contains no REACH Annex XIV substances

15.1.2. National Regulations

No additional information available

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out

SECTION 16: Other Information

Indication of Changes

Section	Section Header	Change	Date Changed
		Modified template.	16/10/2018
1.3	Details of the supplier of the safety data sheet	Modified	26/05/2016
2	Hazards identification	Removed DSD/DPD information.	26/05/2016
3	Composition/information on ingredients	Removed not classified components and components below cutoffs. Removed DSD/DPD information.	26/05/2016

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15.1	EU-Regulations	Modified	26/05/2016
Date of Revision	Preparation or Latest	16/10/2018	
Data Sources		this safety data sheet could official government regula product/ingredient manufinformation, and/or resource data and classifications acadoption of GHS.	acturer or supplier specific ces that include substance specific coording to GHS or their subsequent
Other In	formation	According to Regulation (E	EC) No. 1907/2006 (REACH) with its

Full Text of H- and EUH-statements:

Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

amendment Regulation (EU) 2015/830

Abbreviations and Acronyms

ACGIH - American Conference of Governmental Industrial Hyaienists

ADN – European Agreement Concerning the International Carriage of Dangerous

Goods by Inland Waterways

ADR - European Agreement Concerning the International Carriage of Dangerous

Goods by Road

ATE - Acute Toxicity Estimate BCF - Bioconcentration Factor

BEI - Biological Exposure Indices (BEI) BOD - Biochemical Oxygen Demand

CAS No. - Chemical Abstracts Service Number

 $\mbox{CLP}-\mbox{Classification}, \mbox{Labeling}$ and Packaging Regulation (EC) No 1272/2008 $\mbox{COD}-\mbox{Chemical}$ Oxygen Demand

- European Community

EC50 - Median Effective Concentration EEC – European Economic Community

EINECS – European Inventory of Existing Commercial Chemical Substances EmS-No. (Fire) - IMDG Emergency Schedule Fire

EmS-No. (Spillage) - IMDG Emergency Schedule Spillage

EU – European Union ErC50 - EC50 in Terms of Reduction Growth Rate

GHS – Globally Harmonized System of Classification and Labeling of Chemicals

IARC - International Agency for Research on Cancer IATA - International Air Transport Association

IBC Code - International Bulk Chemical Code

IMDG - International Maritime Dangerous Goods

IPRV - Ilgalaikio Poveikio Ribinis Dydis

IOELV – Indicative Occupational Exposure Limit Value LC50 - Median Lethal Concentration

LD50 - Median Lethal Dose

LOAFL - Lowest Observed Adverse Effect Level LOEC - Lowest-Observed-Effect Concentration

Log Koc - Soil Organic Carbon-water Partitioning Coefficient Log Kow - Octanol/water Partition Coefficient

Log Pow - Ratio of the equilibrium concentration (C) of a dissolved substance in a twophase system consisting of two largely immiscible solvents, in this case octanol and

MAK - Maximum Workplace Concentration/Maximum Permissible Concentration

MARPOL - International Convention for the Prevention of Pollution

NDS - Najwyzsze Dopuszczalne Stezenie

NDSCh - Najwyzsze Dopuszczalne Stezenie Chwilowe NDSP - Najwyzsze Dopuszczalne Stezenie Pulapowe

NOAEL - No-Observed Adverse Effect Level

NOFC - No-Observed Effect Concentration

NRD - Nevirsytinas Ribinis Dydis

NTP - National Toxicology Program OFL - Occupational Exposure Limits

PBT - Persistent, Bioaccumulative and Toxic

PEL - Permissible Exposure Limit pH – Potential Hydrogen

REACH – Registration, Evaluation, Authorisation, and Restriction of Chemicals

RID – Regulations Concerning the International Carriage of Dangerous Goods by Rail

SADT - Self Accelerating Decomposition Temperature

SDS - Safety Data Sheet

STEL - Short Term Exposure Limit

TA-Luft - Technische Anleitung zur Reinhaltung der Luft

TEL TRK - Technical Guidance Concentrations

ThOD – Theoretical Oxygen Demand

TLM - Median Tolerance Limit TLV - Threshold Limit Value

TPRD - Trumpalaikio Poveikio Ribinis Dydis

TRGS 510 - Technische Regel für Gefahrstoffe 510 - Lagerung von Gefahrstoffen in

ortsbeweglichen Behältern

TRGS 552 – Technische Regeln für Gefahrstoffe - N-Nitrosamine

TRGS 900 - Technische Regel für Gefahrstoffe 900 – Arbeitsplatzgrenzwerte TRGS 903 - Technische Regel für Gefahrstoffe 903 - Biologische Grenzwerte

TSCA - Toxic Substances Control Act

TWA - Time Weighted Average VOC – Volatile Organic Compounds

VLA-EC - Valor Límite Ambiental Exposición de Corta Duración VLA-ED - Valor Límite Ambiental Exposición Diaria

VLE - Valeur Limite D'exposition

VME – Valeur Limite De Moyenne Exposition vPvB - Very Persistent and Very Bioaccumulative

WEL - Workplace Exposure Limit

WGK - Wassergefährdungsklasse

Nusil EU GHS SDS

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