

# Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Revision date: 04/10/2019 Date of issue: 21/11/2014

Version: 4.0

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

#### 1.1. Product Identifier

Product form Mixture
Product Name R4-1140

Synonyms Silicone Adhesive

#### 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 For professional use only.

#### 1.2.2. Uses Advised Against

No additional information available

#### Details of the Supplier of the Safety Data Sheet

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#### 1.4. Emergency Telephone Number

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

(International and Maritime)

+(44)-870-8200418 +(353)-19014670

#### **SECTION 2: Hazards Identification**

# 2.1. Classification of the Substance or Mixture

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

Skin Corr. 1B H314 Eye Dam. 1 H318

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)

GHS05

Signal Word (CLP) Danger

Hazardous Ingredients Silanetriol, ethyl-, triacetate

Hazard Statements (CLP) H314 - Causes severe skin burns and eye damage. Precautionary Statements (CLP) P260 - Do not breathe vapours, mist, or spray

P264 - Wash hands, forearms and face thoroughly after

handling

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P280 - Wear eye protection, face protection, protective

clothing, protective gloves

P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with 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 rinsing.

P310 - Immediately call a POISON CENTER or doctor P321 - Specific treatment (see SECTION 4 on this SDS)

P405 - Store locked up.

P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, patiengl and/or international regulation.

national and/or international regulation.

**EUH-statements** 

EUH014 - Reacts violently with water.

#### 2.3. Other Hazards

Other Hazards Not Contributing to the Classification

Exposure may aggravate pre-existing eye, skin, or 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]
Silanetriol, ethyl-, triacetate	(CAS-No.) 17689-77-9 (EC-No.) 241-677-4	< 10	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318
Glycidoxypropyltrimethoxysilane	(CAS-No.) 2530-83-8 (EC-No.) 219-784-2	< 1	Eye Dam. 1, H318

Full text of H-statements: see section 16

#### **SECTION 4: First Aid Measures**

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

First-Aid Measures General

Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where

possible).

First-Aid Measures After

Inhalation

When symptoms occur: go into open air and ventilate

suspected area. Obtain medical attention if breathing difficulty

persists.

First-Aid Measures After Skin

Contact

Remove contaminated clothing. Immediately flush skin with plenty of water for at least 30 minutes. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or

doctor.

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First-Aid Measures After Eye Rinse cautiously with water for at least 30 minutes. Remove

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

immediate medical advice/attention.

First-Aid Measures After Rinse mouth. Do NOT induce vomiting. Obtain medical

Ingestion attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

Symptoms/Effects Causes severe skin burns and eye damage.
Symptoms/Effects After May be corrosive to the respiratory tract.

Inhalation

Symptoms/Effects After Skin Causes severe irritation which will progress to chemical burns.

Contact

Symptoms/Effects After Eye Causes permanent damage to the cornea, iris, or conjunctiva.

Contact

Symptoms/Effects After May cause burns or irritation of the linings of the mouth, throat,

Ingestion and gastrointestinal tract.

Chronic Symptoms None expected under normal conditions of use.

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

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

# **SECTION 5: Firefighting Measures**

#### 5.1. Extinguishing Media

Suitable Extinguishing Media Water spray, dry chemical, foam, carbon dioxide.

Unsuitable Extinguishing Media Do not use a heavy water stream. Use of heavy stream of water

may spread fire.

5.2. Special Hazards Arising From the Substance or Mixture

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

Explosion Hazard Product is not explosive.

Reactivity May react exothermically with water releasing heat. Adding an

acid to a base or base to an acid may cause a violent

reaction.

5.3. Advice for Firefighters

Precautionary Measures Fire Exercise caution when fighting any chemical fire.

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 Do not breathe vapour, mist or spray. Do not get in eyes, on

skin, or on clothing.

**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.

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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. Ventilate area.

#### 6.2. Environmental Precautions

Prevent entry to sewers and 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. As an immediate

precautionary measure, isolate spill or leak area in all directions.

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

Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill. Cautiously

neutralize spilled liquid.

#### 6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

## **SECTION 7: Handling And Storage**

#### 7.1. Precautions for Safe Handling

Additional Hazards When May release corrosive vapors.

**Processed** 

Precautions for Safe Handling Wash hands and other exposed areas with mild soap and

water before eating, drinking or smoking and when leaving work. Do not get in eyes, on skin, or on clothing. Handle empty containers with care because they may still present a hazard.

Do not breathe vapours, mist, spray.

Hygiene Measures Handle in accordance with good industrial hygiene and safety

procedures.

#### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures Comply with applicable regulations.

Storage Conditions Keep container closed when not in use. Store in a dry, cool

place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store in original

container or corrosive resistant and/or lined container.

Incompatible Materials Strong acids, strong bases, strong oxidizers.

#### 7.3. Specific End Use(S)

For bonding silicone elastomers to each other and some synthetics and metals. 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

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas.

Ensure all national/local regulations are observed.

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Personal Protective Equipment Glo

Gloves. Protective clothing. Protective goggles. Face shield. Insufficient ventilation: wear respiratory protection.











Materials for Protective Clothing

Chemically resistant materials and fabrics. Corrosion-proof clothing.

Hand Protection

Eye Protection

Skin and Body Protection Respiratory Protection Wear protective gloves. Chemical safety goggles and face shield.

Wear suitable protective clothing.

If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory

protection.

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 Colourless

Odour No data available Odour Threshold No data available рН 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) No data available **Auto-Ignition Temperature Decomposition Temperature** No data available Flammability (Solid, Gas) Not applicable Vapour Pressure No data available Relative Vapour Density At 20 °C No data available Relative Density 1,12 (water = 1)Solubility No data available

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

#### 9.2. Other Information

VOC content < 1 %

# **SECTION 10: Stability and Reactivity**

#### 10.1. Reactivity

May react exothermically with water releasing heat. Adding an acid to a base or base to an acid may cause a violent reaction.

#### 10.2. Chemical Stability

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

#### 10.3. Possibility Of Hazardous Reactions

Hazardous polymerization will not occur.

#### 10.4. Conditions To Avoid

Direct sunlight, extremely high or low temperatures, and incompatible materials.

## 10.5. Incompatible Materials

Strong acids, strong bases, strong oxidizers.

#### 10.6. Hazardous Decomposition Products

Thermal decomposition generates: Corrosive vapors. Carbon oxides (CO, CO<sub>2</sub>). Silicon oxides.

# **SECTION 11: Toxicological Information**

#### 11.1. Information On Toxicological Effects

Not classified (Based on available data, the classification **Acute Toxicity** criteria are not met)

Silanetriol, ethyl-, triacetate (17689-77-9)		
LD50 Oral Rat	1460 mg/kg	
LD50 Oral	1462 mg/kg	
Glycidoxypropyltrimethoxysilane (2530-83-8)		
LD50 Oral Rat	8025 mg/kg	
LD50 Dermal Rabbit 4250 mg/kg		
LC50 Inhalation Rat	> 5.3  mg/l/4h	

Skin Corrosion/Irritation Causes severe skin burns and eye damage.

Eye Damage/Irritation Causes serious eye damage.

Respiratory or Skin Sensitization Not classified (Based on available data, the classification

criteria are not met)

Not classified (Based on available data, the classification Germ Cell Mutagenicity

criteria are not met)

Carcinogenicity Not classified (Based on available data, the classification

criteria are not met)

Not classified (Based on available data, the classification Reproductive Toxicity

criteria are not met)

Specific Target Organ Toxicity

Not classified (Based on available data, the classification (Single Exposure) criteria are not met)

Specific Target Organ Toxicity (Repeated Not classified (Based on available data, the

Exposure) classification criteria are not met)

Aspiration Hazard Not classified (Based on available data, the classification

criteria are not met)

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# **SECTION 12: Ecological Information**

#### 12.1. Toxicity

Ecology - General Not classified.

Glycidoxypropyltrimethoxysilane (2530-83-8)		
LC50 Fish 1 55 mg/l (Exposure time: 96 h - Species: Cyprinus carpio)		
EC50 Daphnia 1	710 mg/l (Exposure time: 48 h - Species: Daphnia magna)	
ErC50 (Algae)	350 mg/l Exposure time: 96 h - Species: Pseudokirchnerella subcapitata)	

#### 12.2. Persistence and Degradability

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Persistence and Degradability	Not established.

#### 12.3. Bioaccumulative Potential

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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 contents/container in accordance with local,

Recommendations regional, national, and international regulations.

Additional Information Container may remain hazardous when empty. Continue to

observe all precautions.

# **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. Except by transportation by aircraft, the transport classification does not apply to packages smaller than 1.0 L (0.3 gallons). In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN Numbe	14.1. UN Number			
1760	1760	1760	1760	1760
14.2. UN Proper	14.2. UN Proper Shipping Name			
CORROSIVE	CORROSIVE	CORROSIVE	CORROSIVE	CORROSIVE
LIQUID, N.O.S.	LIQUID, N.O.S.	LIQUID, N.O.S.	LIQUID, N.O.S.	LIQUID, N.O.S.
(CONTAINS	(CONTAINS	(CONTAINS	(CONTAINS	(CONTAINS
Silanetriol, ethyl-,	Silanetriol, ethyl-,	Silanetriol, ethyl-,	Silanetriol, ethyl-,	Silanetriol, ethyl-,
triacetate)	triacetate)	triacetate)	triacetate)	triacetate)

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ADR	IMDG	IATA	ADN	RID
14.3. Transport Hazard Class(Es)				
8	8	8	8	8
8				
14.4. Packing Group				
II	II			
14.5. Environme	ntal Hazards			
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No

# 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
1	Identification of the substance/mixture and of the company/undertaking	Modified	04/10/2019
2	Hazards identification	Modified	04/10/2019
3	Composition/information on ingredients	Modified	04/10/2019
4	First aid measures	Modified	04/10/2019
9	Physical and chemical properties	Modified	04/10/2019
11	Toxicological information	Modified	04/10/2019
14	Transport information	Modified	04/10/2019

Date of Preparation or Latest

04/10/2019

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Information and data obtained and used in the authoring of Data Sources

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

#### Full Text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
EUH014	Reacts violently with water.

#### 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

BEI - Biological Exposure Indices (BEI)

BOD - Biochemical Oxygen Demand

CA\$ 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 - Ilaalaikio Poveikio Ribinis Dydis

IOELV – Indicative Occupational Exposure Limit Value

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

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

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

 ${\rm RID}$  – Regulations Concerning the International Carriage of Dangerous Goods by Rail SADT - Self Accelerating Decomposition Temperature

SDS - Safety Data Sheet

STEL - Short Term Exposure Limit

STOT - Specific Target Organ Toxicity

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

WFI - Workplace Exposure Limit WGK - Wassergefährdungsklasse

Nusil EU GHS SDS

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