



Revision Number: 004.0

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	Loctite(R) 5999 Grey High Performance RTV Silicone Gasket Maker	IDH number:	231230
Product type:	Silicone	Item number:	21744
Company address:	Henkel Corporation One Henkel Way Rocky Hill, Connecticut 06067	Region:	United States
		Contact information:	Telephone: 860.571.5100 Emergency telephone: 860.571.5100 Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Physical state:	paste	HEALTH:	*2
Color:	grey	FLAMMABILITY:	1
Odor:	mild	PHYSICAL HAZARD:	0
		Personal Protection:	See MSDS Section 8

WARNING: CONTACT WITH UNCURED SEALANT MAY CAUSE EYE AND SKIN IRRITATION.
 INHALATION OF VAPORS FROM UNCURED SEALANT MAY CAUSE RESPIRATORY TRACT IRRITATION
 PROLONGED OR REPEATED CONTACT WITH UNCURED SEALANT MAY CAUSE BURNS TO SKIN AND EYES.
 MAY CAUSE ALLERGIC SKIN REACTION.

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects

Inhalation:	When heated to temperatures exceeding 300° F (150° C) in the presence of air, silicones may form formaldehyde vapors. Formaldehyde is a potential cancer hazard and a known skin and respiratory sensitizer. Vapors irritate the eyes, nose and throat. Safe handling conditions may be maintained by keeping formaldehyde vapor concentrations below the OSHA permissible limit. Inhalation of vapors from uncured sealant may cause respiratory tract irritation.
Skin contact:	Prolonged or repeated contact with uncured sealant may cause skin irritation. Repeated or prolonged skin contact may result in allergic sensitization. Repeated or prolonged exposure may cause skin burns.
Eye contact:	Vapors may irritate eyes. Contact with eyes will cause irritation. Repeated or prolonged contact may cause burns.
Ingestion:	Not expected under normal conditions of use. May be harmful if swallowed.

Existing conditions aggravated by exposure: Skin disorders.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components	CAS NUMBER	%
Calcium carbonate	471-34-1	10 - 30
Butan-2-one O,O',O''-(vinylsilyldiyl)trioxime	2224-33-1	5 - 10
Silicon dioxide	7631-86-9	1 - 5
Butanone oxime	96-29-7	1 - 5
[3-(Trimethoxysilyl)propyl]urea	23843-64-3	0.1 - 1
Aluminum	7429-90-5	0.1 - 1

Non hazardous components

Silicone Resins 30-50%

Exposure to moisture during cure will release 3-5% methanol. Methyl ethyl ketoxime (MEKO) is formed during cure. This product will release up to 5% MEKO.

4. FIRST AID MEASURES

Inhalation:	Move to fresh air. If symptoms persist, seek medical advice.
Skin contact:	Wipe off paste with paper towel or cloth. Wash with soap and water. If skin irritation persists, call a physician.
Eye contact:	Get medical attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Ingestion:	Do not induce vomiting. Keep individual calm. Get medical attention.

5. FIRE FIGHTING MEASURES

Flash point:	> 93 °C (> 199.4 °F)
Autoignition temperature:	Not available.
Flammable/Explosive limits - lower:	Not applicable
Flammable/Explosive limits - upper:	Not applicable
Extinguishing media:	Carbon dioxide. Dry chemical. foam
Special firefighting procedures:	Wear self contained breathing apparatus.
Unusual fire or explosion hazards:	None
Hazardous combustion products:	Oxides of carbon. Oxides of silicon. Formaldehyde.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions:	Do not allow product to enter sewer or waterways.
Clean-up methods:	Scrape up as much material as possible. Maintain good ventilation for large spills. Store in a partly filled, closed container until disposal.

7. HANDLING AND STORAGE

Handling:	Do not handle contact lenses until all sealant has been removed from hands. Residual sealant may transfer to lenses and cause eye irritation. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling.
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Storage:

For safe storage, store between 8 °C (46.4 °F) and 28 °C (82.4 °F)
Store in a dry area below 90° F. Keep container closed.

For information on product shelf life contact Henkel Customer Service at (800) 243-4874.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous components	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Calcium carbonate	10 mg/m3 TWA Total dust.	5 mg/m3 TWA Respirable fraction. 15 mg/m3 TWA Total dust.	None	None
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime	None	None	None	None
Silicon dioxide	6 mg/m3 TWA	20 MPPCF TWA 0.8 mg/m3 TWA	None	3 mg/m3 TWA Respirable fraction.
Butanone oxime	None	None	10 ppm (36 mg/m3) TWA (Skin sensitizer.)	None
[3-(Trimethoxysilyl)propyl]urea	None	None	None	None
Aluminum	1 mg/m3 TWA Respirable fraction.	15 mg/m3 TWA (as Al) Total dust. 5 mg/m3 TWA (as Al) Respirable dust.	None	None

Engineering controls:

Ensure adequate ventilation, especially in confined areas.

Respiratory protection:

Use NIOSH approved respirator if there is potential to exceed exposure limit(s). Use an organic vapor respirator for concentrations exceeding the Occupational Exposure Limit.

Eye/face protection:

Safety goggles or safety glasses with side shields.

Skin protection:

Impervious clothing. Permeation resistant gloves (butyl rubber, nitrile rubber, polyvinyl alcohol).

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	paste
Color:	grey
Odor:	mild
Odor threshold:	Not available.
pH:	Not applicable
Vapor pressure:	< 5 mm hg
Boiling point/range:	Not applicable
Melting point/ range:	Not available.
Specific gravity:	1.5 at 20 °C (68°F)
Vapor density:	Heavier than air.
Flash point:	> 93 °C (> 199.4 °F)
Flammable/Explosive limits - lower:	Not applicable
Flammable/Explosive limits - upper:	Not applicable
Autoignition temperature:	Not available.
Evaporation rate:	Not available.
Solubility in water:	Polymerises in presence of water.
Partition coefficient (n-octanol/water):	Not available.
VOC content:	4.16 %; 59.55 g/l

10. STABILITY AND REACTIVITY

Stability:	Stable
Hazardous reactions:	Will not occur.
Hazardous decomposition products:	Formaldehyde. Methyl ethyl ketoxime formed during cure. Oxides of silicon. Oxides of carbon.
Incompatible materials:	Polymerizes on contact with water. Oxidizing agents. Acids and bases.
Conditions to avoid:	Moisture.

11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Calcium carbonate	No	No	No
Butan-2-one O,O',O''-(vinylsilyldiyl)trioxime	No	No	No
Silicon dioxide	No	No	No
Butanone oxime	No	No	No
[3-(Trimethoxysilyl)propyl]urea	No	No	No
Aluminum	No	No	No

Hazardous components	Health Effects/Target Organs
Calcium carbonate	Nuisance dust
Butan-2-one O,O',O''-(vinylsilyldiyl)trioxime	Irritant, Allergen
Silicon dioxide	Nuisance dust
Butanone oxime	Allergen, Blood, Central nervous system, Eyes, Irritant, Some evidence of carcinogenicity
[3-(Trimethoxysilyl)propyl]urea	No Records
Aluminum	Central nervous system, Irritant, Lung

12. ECOLOGICAL INFORMATION

Ecological information:	No specific studies have been conducted by Henkel on the ecotoxicity or environmental fate of this material; however, commonly available data on the material indicate that uncontrolled releases to soil, ground water, or surface waters could entail acute and/or chronic ecological effects, depending on the quantity and concentration of such releases. Releases of volatile components to the atmosphere are not believed to entail significant ecological consequences provided such releases are within the exposure levels set forth in this document. Accordingly, all appropriate measures should be taken to avoid uncontrolled releases to the environment, and any spills or other uncontrolled releases which may occur should be contained and cleaned up immediately in accordance with Section 6.
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13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Cured rubber can be incinerated or landfilled following EPA and local regulations.

Hazardous waste number: Not a RCRA hazardous waste.

14. TRANSPORT INFORMATION

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

International Air Transportation (ICAO/IATA)

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

Water Transportation (IMO/IMDG)

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None
Exceptions: None

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.

TSCA 12(b) Export Notification: None above reporting de minimus

CERCLA/SARA Section 302 EHS: None above reporting de minimus
CERCLA/SARA Section 311/312: Immediate Health, Delayed Health
CERCLA/SARA 313: None above reporting de minimus

California Proposition 65: This product contains a chemical known in the State of California to cause cancer. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Canada Regulatory Information

CEPA DSL/NDL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

WHMIS hazard class: D.2.A, D.2.B

16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: Corrected information in Section(s): 2,3

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