



Revision Number: 002.1

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name: LOCTITE SI 5421 known as Loctite(R) **IDH number:** 236637
5421 Electrically Conductive
Product type: Silicone Sealant **Item number:** 32728
Restriction of Use: None identified **Region:** United States
Company address: **Contact information:**
 Henkel Corporation Telephone: (860) 571-5100
 One Henkel Way MEDICAL EMERGENCY Phone: Poison Control Center
 Rocky Hill, Connecticut 06067 1-877-671-4608 (toll free) or 1-303-592-1711
 TRANSPORT EMERGENCY Phone: CHEMTREC
 1-800-424-9300 (toll free) or 1-703-527-3887
 Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING: CAUSES SKIN IRRITATION.
 MAY CAUSE AN ALLERGIC SKIN REACTION.
 CAUSES SERIOUS EYE IRRITATION.
 MAY CAUSE RESPIRATORY IRRITATION.
 MAY CAUSE DROWSINESS OR DIZZINESS.

HAZARD CLASS	HAZARD CATEGORY
SKIN IRRITATION	2
EYE IRRITATION	2A
SKIN SENSITIZATION	1
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	3

PICTOGRAM(S)



Precautionary Statements

Prevention: Avoid breathing vapors, mist, or spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear eye and face protection. Wear protective gloves.

Response: IF ON SKIN: Wash with plenty of soap and water. IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to remove. Continue rinsing. Call a poison control center or physician if you feel unwell. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal: Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
Silver	7440-22-4	30 - 60
Aluminum	7429-90-5	10 - 30
Silver	7440-22-4	5 - 10
Dodec-1-ene	112-41-4	1 - 5
Trimethoxyvinylsilane	2768-02-7	1 - 5

* Exact percentage is a trade secret. Concentration range is provided to assist users in providing appropriate protections.

4. FIRST AID MEASURES

Inhalation:	Move to fresh air in case of accidental inhalation of vapours or decomposition products. If symptoms develop and persist, get medical attention.
Skin contact:	Wipe off paste with paper towel or cloth. Wash with soap and water. If skin irritation persists, call a physician.
Eye contact:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms develop and persist, get medical attention.
Ingestion:	Do not induce vomiting. Get medical attention.
Symptoms:	See Section 11.

5. FIRE FIGHTING MEASURES

Extinguishing media:	Foam, dry chemical or carbon dioxide.
Special firefighting procedures:	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. Prevent inhalation of fumes and gases.
Unusual fire or explosion hazards:	Not available.
Hazardous combustion products:	Formaldehyde. Irritating organic vapours. Oxides of carbon. Oxides of silicon.

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 material to contaminate ground water system.
Clean-up methods:	Scrape up as much material as possible. Maintain good ventilation for large spills. Place scrap material in a well ventilated area and allow to cure to rubber.

7. HANDLING AND STORAGE

Handling:	Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Do not handle contact lenses until all sealant has been removed from hands. Residual sealant may transfer to lenses and cause eye irritation.
Storage:	Store in a dry area below 90° F.

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 Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Silver	0.1 mg/m ³ TWA Dust and fume.	0.01 mg/m ³ PEL (as Ag)	None	None
Aluminum	1 mg/m ³ TWA Respirable fraction.	5 mg/m ³ PEL (as Al) Respirable dust. 15 mg/m ³ PEL (as Al) Total dust.	None	None
Silver	0.1 mg/m ³ TWA Dust and fume.	0.01 mg/m ³ PEL (as Ag)	None	None
Dodec-1-ene	None	None	None	None
Trimethoxyvinylsilane	None	None	None	None

Engineering controls:	Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.
Respiratory protection:	Breathing apparatus only if aerosol or dust is formed.
Eye/face protection:	Safety goggles or safety glasses with side shields. Safety showers and eye wash stations should be available.
Skin protection:	Use impermeable gloves and protective clothing as necessary to prevent skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Paste
Color:	Tan
Odor:	Slight, Alcoholic
Odor threshold:	Not available.
pH:	Not applicable
Vapor pressure:	< 10 mm hg (21.1 °C (70°F))
Boiling point/range:	Not available.
Melting point/ range:	Not available.
Specific gravity:	2.7663 at 20 °C (68°F)
Vapor density:	Not available.
Flash point:	> 100 °C (> 212°F)
Flammable/Explosive limits - lower:	Not applicable
Flammable/Explosive limits - upper:	Not applicable
Autoignition temperature:	Not applicable
Evaporation rate:	Not available.
Solubility in water:	Polymerises in presence of water.
Partition coefficient (n-octanol/water):	Not available.
VOC content:	1.69 %; 55.3 g/l
Viscosity:	Not available.
Decomposition temperature:	Not available.

10. STABILITY AND REACTIVITY

Stability:	Stable at normal conditions.
Hazardous reactions:	None under normal processing.
Hazardous decomposition products:	Contact with water liberates methanol. Oxides of carbon. Oxides of silicon. Formaldehyde.
Incompatible materials:	Acids. Bases. Oxidizing agents. Contact with water liberates methanol.
Reactivity:	Not available.
Conditions to avoid:	Product is sensitive to light and moisture.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes, Ingestion

Potential Health Effects/Symptoms

Inhalation:	Inhalation of vapors from uncured sealant may cause respiratory tract irritation. 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. Overexposure to methanol formed during cure may cause drowsiness, nausea, and vomiting.
Skin contact:	Causes skin irritation. May cause allergic skin reaction.
Eye contact:	Causes serious eye irritation.
Ingestion:	Not expected under normal conditions of use. May be harmful if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Silver	Oral LD50 (RAT) = > 5,000 mg/kg Dermal LD50 (RAT) = > 2,000 mg/kg	Allergen, Eyes, Irritant, Respiratory, Skin
Aluminum	None	Central nervous system, Irritant, Lung
Silver	Oral LD50 (RAT) = > 5,000 mg/kg Dermal LD50 (RAT) = > 2,000 mg/kg	Allergen, Eyes, Irritant, Respiratory, Skin
Dodec-1-ene	None	Central nervous system, Irritant, Lung
Trimethoxyvinylsilane	None	Irritant, Allergen

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Silver	No	No	No
Aluminum	No	No	No
Silver	No	No	No
Dodec-1-ene	No	No	No
Trimethoxyvinylsilane	No	No	No

12. ECOLOGICAL INFORMATION

Ecological information: Not available.

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: D011. Silver.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

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 minimis

CERCLA/SARA Section 302 EHS: None above reporting de minimis
CERCLA/SARA Section 311/312: Immediate Health, Delayed Health
CERCLA/SARA Section 313: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Silver (CAS# 7440-22-4). Silver (CAS# 7440-22-4). Aluminum (CAS# 7429-90-5).

CERCLA Reportable quantity: Silver (CAS# 7440-22-4) 1,000 lbs. (454 kg)

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

Canada Regulatory Information

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

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: New Safety Data Sheet format.

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