



Revision Number: 005.0

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## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name:** LOCTITE S 563R known as Dorus S 563R  
**Product type:** Adhesive  
**Restriction of Use:** None identified  
**Company address:** Henkel Corporation  
 One Henkel Way  
 Rocky Hill, Connecticut 06067

**IDH number:** 748018  
**Region:** United States  
**Contact information:**  
 Telephone: (860) 571-5100  
 MEDICAL EMERGENCY Phone: Poison Control Center  
 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

**DANGER:** HIGHLY FLAMMABLE LIQUID AND VAPOR.  
 MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS.  
 CAUSES SKIN IRRITATION.  
 MAY CAUSE AN ALLERGIC SKIN REACTION.  
 CAUSES SERIOUS EYE IRRITATION.  
 MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING  
 DIFFICULTIES IF INHALED.  
 MAY CAUSE DROWSINESS OR DIZZINESS.

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

### PICTOGRAM(S)



### Precautionary Statements

**Prevention:** Keep away from heat, sparks, open flames, hot surfaces - no smoking. Keep container tightly closed. No release into water. Use explosion-proof equipment. Use only non-sparking tools. Take precautionary measures against static discharge. 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 protective gloves, eye protection, and face protection. In case of inadequate ventilation wear respiratory protection.

**Response:** IF SWALLOWED: Immediately call a physician or poison control center. If on skin (or hair): Take off immediately all contaminated clothing. 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

**Storage:**

present and easy to remove. Continue rinsing. Do NOT induce vomiting. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention. If experiencing respiratory symptoms: Call a poison center or physician. Take off contaminated clothing. In case of fire: Use foam, dry chemical or carbon dioxide to extinguish.

**Disposal:**

Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up. 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*
Acetone	67-64-1	30 - 60
n-Heptane	142-82-5	10 - 30
Solvent naphtha, petroleum, light aliph.	64742-89-8	10 - 30
n-Hexane	110-54-3	10 - 30
Toluene	108-88-3	5 - 10
Phenolic resin	Unknown	1 - 5
Cyclohexane	110-82-7	1 - 5
Magnesium oxide	1309-48-4	1 - 5
Zinc oxide	1314-13-2	0.1 - 1
Rosin	8050-09-7	0.1 - 1

\* 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. If not breathing, give artificial respiration. Get immediate medical attention.

**Skin contact:**

Immediately wash skin thoroughly with soap and water. Remove contaminated clothing and footwear. Get immediate medical attention.

**Eye contact:**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get immediate medical attention.

**Ingestion:**

DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get immediate 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.

**Unusual fire or explosion hazards:**

Vapors are heavier than air and may travel along the ground or be moved by ventilation and subsequently ignited by heat, pilot lights or other ignition sources at locations distant from the material handling point. Overexposure to decomposition products may cause a health hazard. Symptoms may not be readily apparent. Obtain medical attention.

**Hazardous combustion products:**

Thermal decomposition can lead to release of irritating gases and vapors. Smoke. Oxides of carbon.

## 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:**

Isolate area. Keep unnecessary personnel away. Prevent further leakage or spillage if safe to do so. Prevent contamination of soil and water.

**Clean-up methods:**

Remove all sources of ignition. Use non-sparking tools for clean-up. Wear suitable protective clothing, gloves and eye/face protection. Wear suitable respiratory protection. Avoid skin contact and inhalation of vapors during disposal of spills. Confine in small area; use absorbent to clean up. Place in container for disposal with accordance with federal, state and local regulations.

## 7. HANDLING AND STORAGE

**Handling:**

Do not handle or store near an open flame, heat or other sources of ignition. Avoid breathing vapors or mists of this product. Wear suitable protective clothing, safety glasses and gloves. Avoid skin and eye contact. Use proper bonding and/or grounding procedures. Keep container closed.

**Storage:**

For safe storage, store between 3 °C (37.4 °F) and 46 °C (114.8 °F)

**For information on product shelf life, please review labels on container or check the Technical Data Sheet.**

## 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
Acetone	750 ppm STEL 500 ppm TWA	1,000 ppm (2,400 mg/m <sup>3</sup> ) PEL	None	None
n-Heptane	400 ppm TWA 500 ppm STEL	500 ppm (2,000 mg/m <sup>3</sup> ) PEL	None	None
Solvent naphtha, petroleum, light aliph.	None	None	None	None
n-Hexane	50 ppm TWA (SKIN)	500 ppm (1,800 mg/m <sup>3</sup> ) PEL	None	None
Toluene	20 ppm TWA	200 ppm TWA 300 ppm Ceiling 500 ppm MAX. CONC 10 minutes	None	None
Phenolic resin	None	None	None	None
Cyclohexane	100 ppm TWA	300 ppm (1,050 mg/m <sup>3</sup> ) PEL	None	None
Magnesium oxide	10 mg/m <sup>3</sup> TWA Inhalable fraction.	15 mg/m <sup>3</sup> PEL Total particulate.	None	None
Zinc oxide	2 mg/m <sup>3</sup> TWA Respirable fraction. 10 mg/m <sup>3</sup> STEL Respirable fraction.	5 mg/m <sup>3</sup> PEL Fume. 5 mg/m <sup>3</sup> PEL Respirable fraction. 15 mg/m <sup>3</sup> PEL Total dust.	None	None
Rosin	Exposure by all routes should be carefully controlled to levels as low as possible. Included in the regulation but with no data values. See regulation for further details	None	None	None

### Engineering controls:

Ensure adequate ventilation, especially in confined areas. Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

### Respiratory protection:

Do not inhale vapors and fumes. Use NIOSH approved respirator if there is potential to exceed exposure limit(s). Observe OSHA regulations for respirator use (29 CFR 1910.134).

### Eyeface protection:

Safety goggles or safety glasses with side shields. Wear face shield as necessary when spraying.

### Skin protection:

Use impermeable gloves and protective clothing as necessary to prevent skin contact.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Physical state:

Liquid

### Color:

Red

### Odor:

Solvent

### Odor threshold:

Not available.

### pH:

Not applicable

### Vapor pressure:

Not determined

### Boiling point/range:

54 - 112 °C (129.2 - 233.6 °F)

### Melting point/ range:

Not determined

### Specific gravity:

0.79 - 0.82

### Vapor density:

Heavier than air.

### Flash point:

-26.1 °C (-14.98 °F)

<b>Flammable/Explosive limits - lower:</b>	2.2 % (value for solvent)
<b>Flammable/Explosive limits - upper:</b>	13 % (value for solvent)
<b>Autoignition temperature:</b>	Not determined
<b>Evaporation rate:</b>	Slower than diethyl ether.
<b>Solubility in water:</b>	Not soluble
<b>Partition coefficient (n-octanol/water):</b>	Not determined
<b>VOC content:</b>	50 % (minus exempt solvents and water).
<b>Viscosity:</b>	100 - 150 cp
<b>Decomposition temperature:</b>	Not available.

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable at normal conditions.
<b>Hazardous reactions:</b>	Will not occur.
<b>Hazardous decomposition products:</b>	Burning, including when heated by welding or cutting, will produce smoke, carbon monoxide and carbon dioxide.
<b>Incompatible materials:</b>	Oxidizing agents. Strong acids and strong bases.
<b>Reactivity:</b>	Not available.
<b>Conditions to avoid:</b>	Freezing conditions. Heat, flames, sparks and other sources of ignition.

## 11. TOXICOLOGICAL INFORMATION

<b>Relevant routes of exposure:</b>	Skin, Inhalation, Eyes
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## Potential Health Effects/Symptoms

<b>Inhalation:</b>	May cause irritation to nose and throat. Inhalation of vapors may cause moderate to severe respiratory tract irritation. Central nervous system depression, including dizziness, drowsiness, fatigue, nausea, headache, unconsciousness. May cause allergic respiratory reaction. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.
<b>Skin contact:</b>	This material is a primary skin irritant. May cause irritation due to defatting of the skin. May cause allergic skin reaction in susceptible individuals.
<b>Eye contact:</b>	This product may be severely irritating to the eyes. May cause corneal injury.
<b>Ingestion:</b>	Harmful if swallowed. Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspirated material can enter the lungs and result in pneumonitis.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Acetone	Oral LD50 (RABBIT) = 5,340 mg/kg Oral LD50 (RAT) = 5,800 mg/kg Oral LD50 (RAT) = 9,800 mg/kg Dermal LD50 (RABBIT) = 20,000 mg/kg Inhalation LC50 (RAT, 8 h) = 50.1 mg/l Inhalation LC50 (RAT, 4 h) = 76 mg/l	Blood, Central nervous system, Irritant, Reproductive
n-Heptane	Inhalation LC50 (RAT, 4 h) = 103 mg/l	Central nervous system, Irritant
Solvent naphtha, petroleum, light aliph.	None	Irritant
n-Hexane	Oral LD50 (RAT) = 24 mg/kg Oral LD50 (RAT) = 43.5 mg/kg Oral LD50 (RAT) = 28,710 mg/kg Dermal LD50 (RABBIT) = > 2,000 mg/kg Inhalation LC50 (RAT, 4 h) = 73860 ppm	Developmental, Irritant, Lung, Nervous System, Reproductive
Toluene	Oral LD50 (RAT) = 2.6 g/kg Oral LD50 (RAT) = 5,000 mg/kg Dermal LD50 (RABBIT) = 12,124 mg/kg Inhalation LC50 (RAT, 1 h) = 26700 ppm Inhalation LC50 (RAT, 2 h) = 12200 ppm Inhalation LC50 (RAT, 4 h) = 8000 ppm	Behavioral, Cardiac, Central nervous system, Developmental, Ear, Irritant
Phenolic resin	None	No Data
Cyclohexane	Oral LD50 (RAT) = 29,820 mg/kg	Irritant, Central nervous system
Magnesium oxide	None	Blood, Central nervous system, Immune system, Irritant
Zinc oxide	Oral LD50 (RAT) = > 5 g/kg	Blood, Gastrointestinal, Immune system, Irritant, Kidney, Metabolic, Nervous System, Pancreas, Respiratory, Skin
Rosin	None	Allergen, Irritant, Respiratory

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Acetone	No	No	No
n-Heptane	No	No	No
Solvent naphtha, petroleum, light aliph.	No	No	No
n-Hexane	No	No	No
Toluene	No	No	No
Phenolic resin	No	No	No
Cyclohexane	No	No	No
Magnesium oxide	No	No	No
Zinc oxide	No	No	No
Rosin	No	No	No

## 12. ECOLOGICAL INFORMATION

**Ecological information:** Not available.

### 13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

<b>Recommended method of disposal:</b>	Legal disposition of wastes is the responsibility of the owner/generator of the waste. Applicable federal, state and/or local regulations must be followed during treatment, storage, or disposal of waste containing this product. Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.
<b>Hazardous waste number:</b>	D001: Ignitable. This product may contain traces of: Benzene. Therefore, it may be classified as hazardous waste under EPA RCRA (40 CFR 261.24), with waste number(s): D018. Benzene. However this product is only classifiable as hazardous waste if it exhibits the characteristics of toxicity as shown by the toxicity characteristic leaching procedure (TCLP). Under RCRA, it is the responsibility of the end user of this product to determine whether it meets this criteria at the time of disposal.

### 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)

<b>Proper shipping name:</b>	Adhesives
<b>Hazard class or division:</b>	3
<b>Identification number:</b>	UN 1133
<b>Packing group:</b>	II
<b>DOT Hazardous Substance(s):</b>	Toluene, Acetone

#### International Air Transportation (ICAO/IATA)

<b>Proper shipping name:</b>	Adhesives
<b>Hazard class or division:</b>	3
<b>Identification number:</b>	UN 1133
<b>Packing group:</b>	II

#### Water Transportation (IMO/IMDG)

<b>Proper shipping name:</b>	ADHESIVES
<b>Hazard class or division:</b>	3
<b>Identification number:</b>	UN 1133
<b>Packing group:</b>	II

### 15. REGULATORY INFORMATION

#### United States Regulatory Information

<b>TSCA 8 (b) Inventory Status:</b>	All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
<b>TSCA 12 (b) Export Notification:</b>	None above reporting de minimis
<b>CERCLA/SARA Section 302 EHS:</b>	None above reporting de minimis
<b>CERCLA/SARA Section 311/312:</b>	Immediate Health, Delayed Health, Fire
<b>CERCLA/SARA Section 313:</b>	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). n-Hexane (CAS# 110-54-3). Toluene (CAS# 108-88-3). Cyclohexane (CAS# 110-82-7).
<b>CERCLA Reportable quantity:</b>	Acetone (CAS# 67-64-1) 5,000 lbs. (2,270 kg) Toluene (CAS# 108-88-3) 1,000 lbs. (454 kg) n-Hexane (CAS# 110-54-3) 5,000 lbs. (2,270 kg) Cyclohexane (CAS# 110-82-7) 1,000 lbs. (454 kg) n-Heptane (CAS# 142-82-5) 100 lbs. (45.4 kg) Benzene (CAS# 71-43-2) 10 lbs. (4.54 kg)

**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.

**16. OTHER INFORMATION**

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

**Prepared by:** C. Poulsen, Regulatory Affairs

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