



Revision Number: 004.0

Issue date: 01/30/2025

1. IDENTIFICATION

Product name: LOCTITE MR 5416
Product type/ Solvent based adhesive
Recommended use:
Restriction of Use: None identified
Company address:
 Henkel Corporation
 One Henkel Way
 Rocky Hill, Connecticut 06067

IDH number: 2383478
Item number: 2383478
Region: United States
Contact information:
 Telephone: +1 (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
 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

WARNING: H223 - FLAMMABLE AEROSOL.
 H229 - PRESSURIZED CONTAINER: MAY BURST IF HEATED.
 H315 - CAUSES SKIN IRRITATION.
 H319 - CAUSES SERIOUS EYE IRRITATION.
 H336 - MAY CAUSE DROWSINESS OR DIZZINESS.

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

PICTOGRAM(S)



Precautionary Statements

Prevention: P210 - Keep away from heat, sparks, open flames, hot surfaces - no smoking.
 P211 - Do not spray on an open flame or other ignition source.
 P251 - Do not pierce or burn, even after use.
 P261 - Avoid breathing mist or spray.
 P264 - Wash affected area thoroughly after handling.
 P271 - Use only outdoors or in a well-ventilated area.
Response: P280 - Wear protective gloves, eye protection, and face protection.
 P302+P352 - IF ON SKIN: Wash with plenty of water.
 P304+P340+P312 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P332+P313 - If skin irritation occurs: Get medical attention.
 P337+P313 - If eye irritation persists: Get medical attention.
Storage: P362+P364 - Take off contaminated clothing and wash it before reuse.
 P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
 P405 - Store locked up.
 P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

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Disposal: P501 - Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Other hazards Not available.

The following percentage of the mixture consists of ingredient(s) with unknown acute oral toxicity: 3 %

The following percentage of the mixture consists of ingredient(s) with unknown acute dermal toxicity: 3 %

The following percentage of the mixture consists of ingredient(s) with unknown acute inhalation toxicity: 3 %

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	Weight %*
Methyl acetate	79-20-9	10 - 30
acetone	67-64-1	10 - 30
Petroleum resins	64742-16-1	10 - 30
dimethyl ether	115-10-6	5 - 10
propane	74-98-6	5 - 10
Naphtha, hydrotreated light, <0,1% benzene	64742-49-0	5 - 10
1,1-Difluoroethane	75-37-6	5 - 10
n-Heptane	142-82-5	5 - 10
Styrene butadiene divinylbenzene copolymer	26471-45-4	5 - 10

* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

4. FIRST AID MEASURES

First Aid Measures by likely routes of exposure

Inhalation:	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Skin contact:	Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. Wash clothing before reuse. Get medical attention.
Eye contact:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Ingestion:	Do not induce vomiting. Get medical attention. Never give anything by mouth to an unconscious person.
Most important symptoms and effects (acute and delayed):	The most important known symptoms and effects, both acute and delayed, are described in Section 11: Toxicological Information.
Indication of any immediate medical attention / special treatment needed:	Not available.

5. FIRE FIGHTING MEASURES

Extinguishing media:	Foam, dry chemical or carbon dioxide.
Improper extinguishing agents:	Not available.
Special firefighting procedures:	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

Unusual fire or explosion hazards:

Contents under pressure. Vapors may accumulate in low or confined areas, travel considerable distance to source of ignition, and flash back. Exposure to temperatures above 49°C (120°F) may cause container to burst. Do not puncture or incinerate pressurized containers.

Hazardous combustion products:

Oxides of carbon. Irritating vapors.

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:

Remove all sources of ignition. Ensure adequate ventilation. Wear appropriate personal protective equipment. Keep unnecessary personnel away. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Scrape up as much material as possible. Store in a partly filled, closed container until disposal. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up.

7. HANDLING AND STORAGE

Handling:

During use and until all vapors are gone: Keep area ventilated - do not smoke; extinguish all flames, pilot lights, and heaters; turn off stoves, electrical tools and appliances, and any other sources of ignition. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Do not puncture or incinerate pressurized containers. Refer to Section 8.

Storage:

Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.

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
Methyl acetate	200 ppm TWA 250 ppm STEL	200 ppm (610 mg/m3) PEL	None	None
acetone	250 ppm TWA 500 ppm STEL	1,000 ppm (2,400 mg/m3) PEL	None	None
dimethyl ether	None	None	1,000 ppm (1,880 mg/m3) TWA	None
propane	D: Simple asphyxiant, EX: Explosion hazard (Simple asphyxiant.)	1,000 ppm (1,800 mg/m3) PEL	None	None
Naphtha, hydrotreated light, <0,1% benzene	100 ppm TWA (SKIN)	100 ppm (400 mg/m3) PEL	None	None
1,1-Difluoroethane	None	None	1,000 ppm (2,700 mg/m3) TWA	None
n-Heptane	400 ppm TWA 500 ppm STEL	500 ppm (2,000 mg/m3) PEL	None	None
Methanol	200 ppm TWA (SKIN) 250 ppm STEL	200 ppm (260 mg/m3) PEL	None	None

Engineering controls:

Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

Respiratory protection:

Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

Eye/face protection:

Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists. Safety showers and eye wash stations should be available.

Skin protection:

Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact. Neoprene, Butyl-rubber, or nitrile-rubber gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Aerosol
Color:	No information available.
Odor:	Of hydrocarbons
Odor threshold:	Not available.
pH:	Not applicable
Vapor pressure:	50 - 70 mbar (20 °C (68°F))
Boiling point/range:	7 °C (44.6 °F)
Melting point/ range:	Not available.
Density/Relative density:	0.861
Relative vapor density:	Not available.
Flash point:	-104 °C (-155.2 °F)
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not available.
Flammability:	Not applicable
Evaporation rate:	Not available.
Solubility:	No data available.
Partition coefficient n-octanol/water (logarithmic value):	Not available.
VOC content:	28.7 %
Dynamic viscosity:	Not available.
Kinematic viscosity:	Not available.
Particle characteristics:	Not available.
Decomposition temperature:	Not available.

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of storage and use.
Hazardous reactions:	None under normal processing.
Hazardous decomposition products:	Oxides of carbon. Irritating vapors.
Incompatible materials:	Oxidizing agents.
Reactivity:	Not available.
Conditions to avoid:	Do not puncture, incinerate, or expose to temperatures above 48.9 °C (120 °F). Heat, flames, sparks and other sources of ignition. Store away from incompatible materials.

11. TOXICOLOGICAL INFORMATION

Likely routes of exposure:	Skin, Inhalation, Eyes, Ingestion
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Potential Health Effects/Symptoms

Inhalation:	May cause dizziness, incoordination, headache, nausea, and vomiting.
Skin contact:	Causes skin irritation.
Eye contact:	Causes serious eye irritation.
Ingestion:	May cause gastrointestinal tract irritation if swallowed. Central nervous system depression, including dizziness, drowsiness, fatigue, nausea, headache, unconsciousness.

Hazardous Component(s)	LD50s and LC50s
Methyl acetate	Oral LD50 (Rabbit) = 3.7 g/kg
acetone	Oral LD50 (Mouse) = 5.2 g/kg Oral LD50 (Mouse) = 3,000 mg/kg 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, 4 h) = 76 mg/l Inhalation LC50 (Rat, 4 h) = 50.1 mg/l
Petroleum resins	None
dimethyl ether	Inhalation LC50 (Rat, 4 h) = 164000 ppm Inhalation LC50 (Rat, 4 h) = > 20000 ppm
propane	Inhalation LC50 (Rat, 4 h) = > 13023 ppm Inhalation LC50 (Rat, 4 h) = > 13023 ppm
Naphtha, hydrotreated light, <0,1% benzene	Inhalation LC50 (Rat, 4 h) = > 5,610 mg/m3 Inhalation LC50 (Rat, 4 h) = > 7,630 mg/m3
1,1-Difluoroethane	Inhalation LC50 (Rat, 4 h) = > 437500 ppm
n-Heptane	Inhalation LC50 (Rat, 4 h) = > 73.5 mg/l Inhalation LC50 (Rat, 4 h) = > 29.29 mg/l
Styrene butadiene divinylbenzene copolymer	None

Hazardous Component(s)	Immediate Health Effects	Delayed Health Effects	Chronic Health Effects
Methyl acetate	Irritant		Blood Central nervous system Eyes
acetone	Irritant		Central nervous system
Petroleum resins			Central nervous system
dimethyl ether	Irritant		Central nervous system
propane	Irritant		Cardiac Central nervous system
Naphtha, hydrotreated light, <0,1% benzene	Irritant		Central nervous system Kidney Lung
1,1-Difluoroethane	Irritant		Cardiac Central nervous system Developmental Respiratory
n-Heptane	Irritant		Central nervous system
Styrene butadiene divinylbenzene copolymer			

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Methyl acetate	No	No	No
acetone	No	No	No
Petroleum resins	No	Group 2B	No
dimethyl ether	No	No	No
propane	No	No	No
Naphtha, hydrotreated light, <0,1% benzene	No	No	No
1,1-Difluoroethane	No	No	No
n-Heptane	No	No	No
Styrene butadiene divinylbenzene copolymer	No	No	No

12. ECOLOGICAL INFORMATION

Ecological information: Not available.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.

14. TRANSPORT INFORMATION

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

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

Proper shipping name: Aerosols
Hazard class or division: 2.1
Identification number: UN 1950
Packing group: None
DOT Hazardous Substance(s): Acetone

International Air Transportation (ICAO/IATA)

Proper shipping name: Aerosols, flammable
Hazard class or division: 2.1
Identification number: UN 1950
Packing group: None

Water Transportation (IMO/IMDG)

Proper shipping name: AEROSOLS (n-Heptane)
Hazard class or division: 2.1
Identification number: UN 1950
Packing group: None
Marine pollutant: n-Heptane

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed as active or are exempt from listing on the Toxic Substances Control Act (TSCA) 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: Please refer to the GHS classification in Section 2

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). Methanol (CAS# 67-56-1).

CERCLA Reportable quantity: Methyl acetate (CAS# 79-20-9) 100 lbs. (45.4 kg)
acetone (CAS# 67-64-1) 5,000 lbs. (2,270 kg)
dimethyl ether (CAS# 115-10-6) 100 lbs. (45.4 kg)
n-Heptane (CAS# 142-82-5) 100 lbs. (45.4 kg)
propane (CAS# 74-98-6) 100 lbs. (45.4 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/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: 2,3,8,11,15

Prepared by: Product Safety and Regulatory Affairs

Issue date: 01/30/2025

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