



Revision Number: 003.0

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**1. PRODUCT AND COMPANY IDENTIFICATION**

<b>Product name:</b>	<b>LOCTITE MR 5412 CONTACT ADHESIVE known as Loctite(R) Contact Adhesive</b>	<b>IDH number:</b>	234923
<b>Product type:</b>	Adhesive	<b>Item number:</b>	30537
<b>Restriction of Use:</b>	None identified	<b>Region:</b>	United States
<b>Company address:</b>	<b>Contact information:</b>		
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**

**DANGER:** HIGHLY FLAMMABLE LIQUID AND VAPOR.  
MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS.  
CAUSES SKIN IRRITATION.  
CAUSES SERIOUS EYE IRRITATION.  
MAY CAUSE DROWSINESS OR DIZZINESS.

HAZARD CLASS	HAZARD CATEGORY
FLAMMABLE LIQUID	2
SKIN IRRITATION	2
EYE IRRITATION	2A
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. Wear protective gloves, eye protection, and face 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 present and easy to remove. Continue rinsing. Call a poison control center or physician if you feel unwell. Do NOT induce vomiting. If skin irritation occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing. In case of fire: Use foam, dry chemical or carbon dioxide to extinguish.

**Storage:** Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. 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*
Methyl ethyl ketone	78-93-3	10 - 30
Acetone	67-64-1	10 - 30
Toluene	108-88-3	10 - 30
n-Hexane	110-54-3	10 - 30
Magnesium oxide	1309-48-4	1 - 5
Silica, amorphous, fumed, crystal-free	112945-52-5	1 - 5
Resin	Proprietary	1 - 5
C.I. Solvent Yellow 3	97-56-3	0.1 - 1

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

### 4. FIRST AID MEASURES

<b>Inhalation:</b>	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
<b>Skin contact:</b>	Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. Wash clothing before reuse. Get medical attention.
<b>Eye contact:</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
<b>Ingestion:</b>	DO NOT induce vomiting unless directed to do so by medical personnel. Aspiration may cause pulmonary edema and pneumonitis. Never give anything by mouth to an unconscious person. Get medical attention.
<b>Symptoms:</b>	See Section 11.

### 5. FIRE FIGHTING MEASURES

<b>Extinguishing media:</b>	Water spray (fog), foam, dry chemical or carbon dioxide.
<b>Special firefighting procedures:</b>	Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. In case of fire, keep containers cool with water spray.
<b>Unusual fire or explosion hazards:</b>	Hydrocarbon solvents are basically non-conductors of electricity and can become electrostatically charged during mixing, filtering or pumping at high flow rates. If this charge reaches a significantly high level, sparks can form that may ignite vapors of flammable liquids. Sudden release of hot organic chemical vapors or mist from process equipment operated at elevated temperatures and pressures or sudden ingress of air into vacuum equipment may result in ignitions without the presence of obvious ignition sources.

**Hazardous combustion products:**

Oxides of carbon. Irritating organic vapours. Hydrocarbons.

## 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. Evacuate and ventilate spill area; dike spill to prevent entry into water system; wear full protective equipment during clean-up. 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:**

Use only with adequate ventilation. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Do not taste or swallow. DO NOT heat or spray. Refer to Section 8.

**Storage:**

For safe storage, store between 0 °C (32°F) and 49 °C (120.2 °F) Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use. Ground and bond metal containers for liquid transfer to avoid static sparks.

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 Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Methyl ethyl ketone	200 ppm TWA 300 ppm STEL	200 ppm (590 mg/m <sup>3</sup> ) PEL	None	None
Acetone	750 ppm STEL 500 ppm TWA	1,000 ppm (2,400 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
n-Hexane	50 ppm TWA (SKIN)	500 ppm (1,800 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
Silica, amorphous, fumed, crystal-free	10 mg/m <sup>3</sup> TWA Inhalable dust. 3 mg/m <sup>3</sup> TWA Respirable fraction.	20 MPPCF TWA 0.8 mg/m <sup>3</sup> TWA	None	None
Resin	None	None	None	None
C.I. Solvent Yellow 3	None	None	None	None

**Engineering controls:**

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

**Respiratory protection:**

Use a NIOSH approved supplied air respirator if the potential to exceed established exposure limits exists. If this material is handled at elevated temperatures or under mist forming conditions, without engineering controls, a NIOSH approved respirator must be used.

**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:** Because a variety of protective gloves exist, consult manufacturer to determine the proper type for a specific operation. Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Liquid
<b>Color:</b>	Yellow
<b>Odor:</b>	Solvent
<b>Odor threshold:</b>	Not available.
<b>pH:</b>	Not applicable
<b>Vapor pressure:</b>	181 mm hg (20 °C (68°F))
<b>Boiling point/range:</b>	56 °C (132.8 °F)
<b>Melting point/ range:</b>	Not available.
<b>Specific gravity:</b>	0.91
<b>Vapor density:</b>	2.68
<b>Flash point:</b>	-24 °C (-11.2 °F) Tagliabue closed cup
<b>Flammable/Explosive limits - lower:</b>	1 %
<b>Flammable/Explosive limits - upper:</b>	12.6 %
<b>Autoignition temperature:</b>	Not available.
<b>Evaporation rate:</b>	14.4 (Butyl acetate = 1)
<b>Solubility in water:</b>	Negligible
<b>Partition coefficient (n-octanol/water):</b>	Not available.
<b>VOC content:</b>	47.4 %; 430 g/l
<b>Viscosity:</b>	Not available.
<b>Decomposition temperature:</b>	Not available.

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under normal conditions of storage and use.
<b>Hazardous reactions:</b>	Will not occur.
<b>Hazardous decomposition products:</b>	Oxides of carbon. Irritating organic vapours. Hydrocarbons.
<b>Incompatible materials:</b>	Oxidizing agents. Acids.
<b>Reactivity:</b>	Not available.
<b>Conditions to avoid:</b>	Elevated temperatures. Heat, flames, sparks and other sources of ignition. Store away from incompatible materials.

## 11. TOXICOLOGICAL INFORMATION

<b>Product toxicity data:</b>	This material has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animals. The relevance to these findings to humans is uncertain.
<b>Relevant routes of exposure:</b>	Skin, Lungs, Ingestion, Eye contact

**Potential Health Effects/Symptoms**

**Inhalation:** Symptoms are typically seen at air concentrations exceeding the recommended exposure limits. Harmful if inhaled.

**Skin contact:** Causes skin irritation. Skin absorption is possible, but harmful effects are not expected from this route of exposure under normal conditions of handling and use. Pre-existing skin disorders may be aggravated by exposure to this material. Repeated or prolonged contact can result in drying of skin. Symptoms may include redness, burning, drying, cracking and skin burns.

**Eye contact:** Causes serious eye irritation. Burning sensation. Redness. Excess tearing. Stinging. Blurred vision.

**Ingestion:** Principal hazard of ingestion is aspiration into the lungs and subsequent pneumonitis. Symptoms can include sore throat, abdominal pain, nausea, vomiting and diarrhea. Harmful or fatal if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Methyl ethyl ketone	Oral LD50 (RAT) = 2,300 - 3,500 mg/kg Oral LD50 (RAT) = 4,500 - 6,800 mg/kg Dermal LD50 (RABBIT) = > 8,000 mg/kg Inhalation LC50 (RAT, 4 h) = 11700 ppm	Irritant, Central nervous system
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
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
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
Magnesium oxide	None	Blood, Central nervous system, Immune system, Irritant
Silica, amorphous, fumed, crystal-free	None	Nuisance dust
Resin	None	Irritant, Allergen
C.I. Solvent Yellow 3	None	Mutagen, Some evidence of carcinogenicity

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Methyl ethyl ketone	No	No	No
Acetone	No	No	No
Toluene	No	No	No
n-Hexane	No	No	No
Magnesium oxide	No	No	No
Silica, amorphous, fumed, crystal-free	No	No	No
Resin	No	No	No
C.I. Solvent Yellow 3	Reasonably Anticipated to be a Human Carcinogen.	Group 2B	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.  
**Hazardous waste number:** D001: Ignitable. D035: Methyl Ethyl Ketone.

## 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:** Adhesives  
**Hazard class or division:** 3  
**Identification number:** UN 1133  
**Packing group:** II  
**DOT Hazardous Substance(s):** Toluene, Methyl ethyl ketone

### International Air Transportation (ICAO/IATA)

**Proper shipping name:** Adhesives  
**Hazard class or division:** 3  
**Identification number:** UN 1133  
**Packing group:** II  
**Exceptions:** (Not more than 500 ml), May Qualify as Consumer Commodity, ID8000

### Water Transportation (IMO/IMDG)

**Proper shipping name:** ADHESIVES  
**Hazard class or division:** 3  
**Identification number:** UN 1133  
**Packing group:** II

## 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:** Fire, 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). Methyl ethyl ketone (CAS# 78-93-3). Toluene (CAS# 108-88-3). n-Hexane (CAS# 110-54-3). C.I. Solvent Yellow 3 (CAS# 97-56-3).  
**CERCLA Reportable quantity:** Methyl ethyl ketone (CAS# 78-93-3) 5,000 lbs. (2,270 kg)  
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)  
**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:** Catherine Bimler, Regulatory Affairs Specialist

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