



Revision Number: 009.0

Issue date: 09/20/2023

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name:** LOCTITE® 5188™ FLANGE SEALANT  
**Product type/use:** Anaerobic  
**Restriction of Use:** None identified  
**Company address:**  
 Henkel Corporation  
 One Henkel Way  
 Rocky Hill, Connecticut 06067

**IDH number:** 1241991  
**Item number:** 1241991  
**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  
 Internet: www.henkelna.com

## 2. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

**WARNING:** CAUSES SKIN IRRITATION.  
 MAY CAUSE AN ALLERGIC SKIN REACTION.  
 CAUSES SERIOUS EYE IRRITATION.  
 SUSPECTED OF CAUSING CANCER.  
 MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR  
 REPEATED EXPOSURE.

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

### PICTOGRAM(S)



### Precautionary Statements

**Prevention:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe vapors, mist, or spray. Wash affected area thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, clothing, eye and face protection.

**Response:** IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical attention. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing.

**Storage:** 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*
------------------------	------------	-------------

IDH number: 1241991

Product name: LOCTITE® 5188™ FLANGE SEALANT

Hexanedioic acid, polymer with 1,3-diisocyanatomethylbenzene, 2-Propenoic acid, 2-methyl-, 1,2-propanediol and 3-methyl-1,5-pentenedi	906346-20-1	30 - 60
Isobornyl methacrylate	7534-94-3	10 - 30
Amorphous fumed silica	68611-44-9	5 - 10
2-Hydroxyethyl methacrylate	868-77-9	5 - 10
Aromatic methacrylate	10595-06-9	5 - 10
Ethene, homopolymer	9002-88-4	5 - 10
2-Phenoxyethyl acrylate	48145-04-6	5 - 10
Cumene hydroperoxide	80-15-9	1 - 5
Acrylic acid	79-10-7	0.1 - 1
3-[2-(Methacryloyloxy)ethoxycarbonyl]propionic acid	20882-04-6	0.1 - 1
1-Acetyl-2-phenylhydrazine	114-83-0	0.1 - 1
Hydroxyalkyl methacrylate	27813-02-1	0.1 - 1
methacrylic acid	79-41-4	0.1 - 1

\* Exact percentages may vary or are 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 clothes. Wash clothing before reuse. Get medical attention.
<b>Eye contact:</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
<b>Ingestion:</b>	Do not induce vomiting. 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>	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.
<b>Unusual fire or explosion hazards:</b>	Uncontrolled polymerization may occur at high temperatures resulting in explosions or rupture of storage containers. In case of fire, keep containers cool with water spray.
<b>Hazardous combustion products:</b>	Oxides of carbon. Irritating organic vapours.

## 6. ACCIDENTAL RELEASE MEASURES

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

<b>Environmental precautions:</b>	Do not allow product to enter sewer or waterways.
<b>Clean-up methods:</b>	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. Keep container closed. Refer to Section 8.

### Storage:

For safe storage, store at or below 21 °C (69.8 °F)  
Keep in a cool, well ventilated area away from heat, sparks and open flame.  
Keep container tightly closed until ready for use.

## 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
Hexanedioic acid, polymer with 1,3-diisocyanatomethylbenzene, 2-Propenoic acid, 2-methyl-, 1,2-propanediol and 3-methyl-1,5-pentenedi	None	None	None	None
Isobornyl methacrylate	None	None	None	None
Amorphous fumed silica	3 mg/m3 TWA Respirable particles. 10 mg/m3 TWA Inhalable particles.	0.8 mg/m3 TWA 20 MPPCF TWA 50 MPPCF TWA Total dust. 15 mg/m3 TWA Total dust. 5 mg/m3 TWA Respirable fraction. 15 MPPCF TWA Respirable fraction.	None	None
2-Hydroxyethyl methacrylate	None	None	None	None
Aromatic methacrylate	None	None	None	None
Ethene, homopolymer	10 mg/m3 TWA Inhalable particles. 3 mg/m3 TWA Respirable particles.	15 MPPCF TWA Respirable fraction. 15 mg/m3 TWA Total dust. 50 MPPCF TWA Total dust. 5 mg/m3 TWA Respirable fraction. 5 mg/m3 PEL Respirable fraction. 15 mg/m3 PEL Total dust.	None	None
2-Phenoxyethyl acrylate	None	None	None	None
Cumene hydroperoxide	None	None	1 ppm (6 mg/m3) TWA (SKIN)	None
Acrylic acid	2 ppm TWA (SKIN)	None	None	1 ppm TWA 3 ppm STEL (SKIN)
3-[2-(Methacryloyloxy)ethoxycarbonyl]propionic acid	None	None	None	None
1-Acetyl-2-phenylhydrazine	None	None	None	None
Hydroxyalkyl methacrylate	None	None	None	1 ppm TWA 3 ppm STEL
methacrylic acid	20 ppm TWA	None	None	None

### Engineering controls:

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

### Respiratory protection:

Use a NIOSH approved air-purifying respirator with an organic vapor cartridge.

### 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

<b>Physical state:</b>	Liquid
<b>Color:</b>	Red
<b>Odor:</b>	Mild
<b>Odor threshold:</b>	Not available.
<b>pH:</b>	Not applicable, Product is non-soluble (in water).
<b>Vapor pressure:</b>	< 1 hPa (20 °C (68°F))
<b>Boiling point/range:</b>	> 100 °C (> 212°F)
<b>Melting point/ range:</b>	Not applicable, Product is a liquid
<b>Specific gravity:</b>	1.13
<b>Vapor density:</b>	> 1 20 °C
<b>Flash point:</b>	> 93 °C (> 199.4 °F) Setaflash Closed Cup
<b>Flammable/Explosive limits - lower:</b>	Not available.
<b>Flammable/Explosive limits - upper:</b>	Not available.
<b>Autoignition temperature:</b>	Not available.
<b>Flammability:</b>	The product is not flammable.
<b>Evaporation rate:</b>	Not available.
<b>Solubility in water:</b>	Not miscible or difficult to mix
<b>Solubility in water:</b>	Soluble
<b>Solubility in water:</b>	Insoluble
<b>Partition coefficient (n-octanol/water):</b>	Not available.
<b>VOC content:</b>	0.72 %
<b>Viscosity:</b>	11,000 - 32,000 mPa.s
<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>	None under normal processing. Polymerization may occur at elevated temperature or in the presence of incompatible materials.
<b>Hazardous decomposition products:</b>	Oxides of carbon. Irritating organic vapours.
<b>Incompatible materials:</b>	Strong oxidizing agents. Water, amines, alkalis and alcohols. Acids. Reducing agents. Oxygen scavengers. Other polymerization initiators. Heavy metals. Bases. Free radical initiators.
<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>Relevant routes of exposure:</b>	Skin, Inhalation, Eyes, Ingestion
-------------------------------------	-----------------------------------

## Potential Health Effects/Symptoms

<b>Inhalation:</b>	Inhalation of vapors or mists of the product may be irritating to the respiratory system.
<b>Skin contact:</b>	Causes skin irritation. May cause allergic skin reaction.
<b>Eye contact:</b>	Causes serious eye irritation.
<b>Ingestion:</b>	May cause gastrointestinal tract irritation if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Hexanedioic acid, polymer with 1,3-diisocyanatomethylbenzene, 2-Propenoic acid, 2-methyl-, 1,2-propanediol and 3-methyl-1,5-pentanedi	None	No Records
Isobornyl methacrylate	None	Irritant, Allergen
Amorphous fumed silica	None	No Target Organs
2-Hydroxyethyl methacrylate	Oral LD50 (Rat) = 11.2 g/kg Oral LD50 (Rat) = 5,050 mg/kg	Irritant, Allergen
Aromatic methacrylate	None	Irritant, Allergen
Ethene, homopolymer	None	No Target Organs
2-Phenoxyethyl acrylate	None	Irritant, Allergen
Cumene hydroperoxide	None	Allergen, Central nervous system, Corrosive, Irritant, Mutagen
Acrylic acid	Oral LD50 (Rat) = 33.5 mg/kg Oral LD50 (Mouse) = 2,400 mg/kg Oral LD50 (Rat) = 2.5 g/kg Oral LD50 (Rat) = 193 mg/kg Oral LD50 (Rat) = 1,250 mg/kg Inhalation LC50 (Rat, 4 h) = 3.6 mg/l Inhalation LC50 (Rat, 4 h) = > 3.9 - < 4.8 mg/l Inhalation LC50 (Rat, 4 h) = > 5.1 mg/l	Allergen, Corrosive, Irritant, Kidney, Liver
3-[2-(Methacryloyloxy)ethoxycarbonyl]propionic acid	None	No Records
1-Acetyl-2-phenylhydrazine	Oral LD50 (Mouse) = 270 mg/kg	Allergen, Blood, Kidney, Mutagen, Some evidence of carcinogenicity
Hydroxyalkyl methacrylate	None	Irritant, Allergen
methacrylic acid	Oral LD50 (Mouse) = 1,332 mg/kg Oral LD50 (Mouse) = 1,600 mg/kg Oral LD50 (Mouse) = 1,250 mg/kg Oral LD50 (Rabbit) = 1,200 mg/kg Oral LD50 (Rat) = 1,060 mg/kg Oral LD50 (Rat) = 2,224 mg/kg Dermal LD50 (Rabbit) = 500 mg/kg	Corrosive, Irritant, Allergen

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Hexanedioic acid, polymer with 1,3-diisocyanatomethylbenzene, 2-Propenoic acid, 2-methyl-, 1,2-propanediol and 3-methyl-1,5-pentanedi	No	No	No
Isobornyl methacrylate	No	No	No
Amorphous fumed silica	No	No	No
2-Hydroxyethyl methacrylate	No	No	No
Aromatic methacrylate	No	No	No
Ethene, homopolymer	No	No	No
2-Phenoxyethyl acrylate	No	No	No
Cumene hydroperoxide	No	No	No
Acrylic acid	No	No	No
3-[2-(Methacryloyloxy)ethoxycarbonyl]propionic acid	No	No	No
1-Acetyl-2-phenylhydrazine	No	No	No
Hydroxyalkyl methacrylate	No	No	No
methacrylic acid	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)

<b>Proper shipping name:</b>	Not regulated
<b>Hazard class or division:</b>	None
<b>Identification number:</b>	None
<b>Packing group:</b>	None

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

<b>Proper shipping name:</b>	Not regulated
<b>Hazard class or division:</b>	None
<b>Identification number:</b>	None
<b>Packing group:</b>	None

#### Water Transportation (IMO/IMDG)

<b>Proper shipping name:</b>	Not regulated
<b>Hazard class or division:</b>	None
<b>Identification number:</b>	None
<b>Packing group:</b>	None

### 15. REGULATORY INFORMATION

#### United States Regulatory Information

<b>TSCA 8 (b) Inventory Status:</b>	All components are listed as active or are exempt from listing on the Toxic Substances Control Act (TSCA) 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
<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). Aromatic methacrylate (CAS# 10595-06-9). Phenol, ethoxylated, esters with acrylic acid (CAS# 56641-05-5). 2-Phenoxyethyl acrylate (CAS# 48145-04-6). Ethylene glycol monophenyl ether (CAS# 122-99-6). Cumene hydroperoxide (CAS# 80-15-9).
<b>California Proposition 65:</b>	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

<b>CEPA DSL/NDL Status:</b>	One or more components are not listed on, and are not exempt from listing on either the Domestic Substances List or the Non-Domestic Substances List.
-----------------------------	---

### 16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: 3,8,9,11,15

**Prepared by:** Product Safety and Regulatory Affairs

**Issue date:** 09/20/2023

**DISCLAIMER:** The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation and its affiliates ("Henkel") does not assume responsibility for any results obtained by persons over whose methods Henkel has no control. It is the user's responsibility to determine the suitability of Henkel's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any Henkel's products. In light of the foregoing, Henkel specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel's products. Henkel further disclaims any liability for consequential or incidental damages of any kind, including lost profits.

This Safety Data Sheet has been generated based on OSHA Hazard Communication Standard (29 CFR 1910.1200) and provides information in accordance with U.S. federal law only. No warranty or representation of any kind is given with respect to the substantive or export laws of any other jurisdiction or country. Please confirm that the information provided herein conforms to the substantive export or other law of any other jurisdiction prior to export. Please contact Henkel Product Safety and Regulatory Affairs for additional assistance.