



Revision Number: 006.0

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	LOCTITE® 5188™ FLANGE SEALANT	IDH number:	1241991
Product type:	Anaerobic	Item number:	1241991
Restriction of Use:	None identified	Region:	United States
Company address:	Contact information:		
Henkel Corporation	Telephone: +1 (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.
 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*
Isobornyl methacrylate	7534-94-3	10 - 20
Amorphous fumed silica	68611-44-9	5 - 10
2-Hydroxyethyl methacrylate	868-77-9	5 - 10
2-Phenoxyethyl acrylate	48145-04-6	5 - 10
Aromatic methacrylate	10595-06-9	5 - 10
Ethene, homopolymer	9002-88-4	5 - 10
Ethene, tetrafluoro-, homopolymer	9002-84-0	1 - 5
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
Ethylene glycol	107-21-1	0.1 - 1
Hydroxyalkyl methacrylate	27813-02-1	0.1 - 1
Cumene	98-82-8	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

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 clothes. 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. Never give anything by mouth to an unconscious person. Get medical attention.
Symptoms:	See Section 11.

5. FIRE FIGHTING MEASURES

Extinguishing media:	Water spray (fog), 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:	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.

Hazardous combustion products:

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.

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. 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
Isobornyl methacrylate	None	None	None	None
Amorphous fumed silica	None	0.8 mg/m ³ TWA 20 MPPCF TWA	None	None
2-Hydroxyethyl methacrylate	None	None	None	3 ppm Ceiling
2-Phenoxyethyl acrylate	None	None	None	None
Aromatic methacrylate	None	None	None	None
Ethene, homopolymer	10 mg/m ³ TWA Inhalable particles. 3 mg/m ³ TWA Respirable particles.	15 MPPCF TWA Respirable fraction. 15 mg/m ³ TWA Total dust. 50 MPPCF TWA Total dust. 5 mg/m ³ TWA Respirable fraction. 5 mg/m ³ PEL Respirable fraction. 15 mg/m ³ PEL Total dust.	None	None
Ethene, tetrafluoro-, homopolymer	None	None	None	10 mg/m ³ TWA Total dust. 5 mg/m ³ TWA Respirable fraction.
Cumene hydroperoxide	None	None	1 ppm (6 mg/m ³) 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
Ethylene glycol	25 ppm TWA Vapor fraction 50 ppm STEL Vapor fraction 10 mg/m ³ STEL Aerosol, inhalable.	None	None	None
Hydroxyalkyl methacrylate	None	None	None	1 ppm TWA 3 ppm STEL
Cumene	50 ppm TWA	50 ppm (245 mg/m ³) PEL (SKIN)	None	None
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

Physical state:	Liquid
Color:	Red
Odor:	Mild
Odor threshold:	Not available.
pH:	Not available.
Vapor pressure:	Not available.
Boiling point/range:	Not available.
Melting point/ range:	Not available.
Specific gravity:	1.13
Vapor density:	Not available.
Flash point:	> 110 °C (> 230°F) Setflash Closed Cup
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not available.
Flammability:	Not applicable
Evaporation rate:	Not available.
Solubility in water:	Insoluble
Partition coefficient (n-octanol/water):	Not available.
VOC content:	0.72 %
Viscosity:	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. Polymerization may occur at elevated temperature or in the presence of incompatible materials.
Hazardous decomposition products:	Oxides of carbon. Irritating organic vapours.
Incompatible materials:	Strong oxidizing agents. Water, amines, alkalis and alcohols. Acids. Reducing agents. Oxygen scavengers. Other polymerization initiators. Heavy metals. Bases. Free radical initiators.
Reactivity:	Not available.
Conditions to avoid:	Elevated temperatures. Heat, flames, sparks and other sources of ignition. Store away from incompatible materials.

11. TOXICOLOGICAL INFORMATION

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

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

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Isobornyl methacrylate	None	Irritant, Allergen
Amorphous fumed silica	None	No Target Organs
2-Hydroxyethyl methacrylate	Oral LD50 (Mouse) = 3,275 mg/kg Oral LD50 (Rat) = 11.2 g/kg Oral LD50 (Rat) = 5,050 mg/kg	Irritant, Allergen
2-Phenoxyethyl acrylate	None	Irritant, Allergen
Aromatic methacrylate	None	Irritant, Allergen
Ethene, homopolymer	None	No Target Organs
Ethene, tetrafluoro-, homopolymer	None	No Target Organs
Cumene hydroperoxide	Inhalation LC50 (Mouse, 4 h) = 200 mg/l	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) = 1,200 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
Ethylene glycol	Oral LD50 (Rat) = 5.89 g/kg Oral LD50 (Mouse) = 14.6 g/kg Dermal LD50 (Rabbit) = 9,530 mg/kg	Blood, Bone Marrow, Central nervous system, Developmental, Eyes, Irritant, Kidney, Liver, Metabolic
Hydroxyalkyl methacrylate	None	Irritant, Allergen
Cumene	Oral LD50 (Rat) = 2.91 g/kg Oral LD50 (Rat) = 1,400 mg/kg Inhalation LC50 (Rat, 4 h) = 8000 ppm	Central nervous system, Irritant, Lung
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 Inhalation LC50 (Rat, 4 h) = 7.1 mg/l	Corrosive, Irritant, Allergen

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Isobornyl methacrylate	No	No	No
Amorphous fumed silica	No	No	No
2-Hydroxyethyl methacrylate	No	No	No
2-Phenoxyethyl acrylate	No	No	No
Aromatic methacrylate	No	No	No
Ethene, homopolymer	No	No	No
Ethene, tetrafluoro-, homopolymer	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
Ethylene glycol	No	No	No
Hydroxyalkyl methacrylate	No	No	No

Cumene	Reasonably Anticipated to be a Human Carcinogen.	Group 2B	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.

Hazardous waste number: Not a RCRA hazardous waste.

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

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: Ethene, tetrafluoro-, homopolymer (CAS# 9002-84-0).

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). 2-Phenoxyethyl acrylate (CAS# 48145-04-6). Aromatic methacrylate (CAS# 10595-06-9). Cumene hydroperoxide (CAS# 80-15-9).

CERCLA Reportable quantity: Cumene hydroperoxide (CAS# 80-15-9) 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/NDSL Status: Contains one or more components listed on the Non-Domestic Substances List. All other components are listed on or are exempt from listing on the Domestic Substances List. Components listed on the NDSL must be tracked by all Canadian Importers of Record as required by Environment Canada. They may be imported into Canada in limited quantities. Please contact Regulatory Affairs for additional details.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: 2

Prepared by: Product Safety and Regulatory Affairs

Issue date: 11/07/2017

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