

JOHN ASTLEY & SONS LTD

MATERIAL SAFETY DATA SHEET

60196

29/12/12

LOCTITE THREAD SEALANT 557

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Name of product: Loctite 577

Intended use: Anaerobic Sealant

Stock Code: 60196

Supplier: Henkel Limited
Technologies House
Wood Lane End
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HP2 4RQ
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2. HAZARDS IDENTIFICATION

Product classification: R-43 May cause sensitisation by skin contact.

Label elements (DPD): Xi - Irritant

Risk phrases: R-43 May cause sensitisation by skin contact.

Safety phrases: S-24 Avoid contact with skin.
S-37 Wear suitable gloves.
S-51 Use only in well-ventilated areas.

Additional labeling: Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use.
Do not spray on a naked flame or any incandescent material.
Keep away from sources of ignition - No smoking.
Keep out of the reach of children

For consumer use only: S-2 Keep out of the reach of children
S-46 If swallowed, seek medical advice immediately and show this container or label.

Contains: Maleic acid

Other hazards: None if used properly.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical description: Anaerobic Sealant

Declaration of hazardous ingredients according to CLP (EC) No 1272/2008:

Ingredient:	CAS No.:	EC No.:	Content:	* Classification:
Lauryl methacrylate	142-90-5	205-570-6	<10%	No data available.
Tetradecyl methacrylate	2549-53-3	219-835-9	<10%	H335, H315, H319
Hexadecyl methacrylate	2495-27-4	219-672-3	<10%	H335, H315, H319
Maleic acid	110-16-7	203-742-5	< 1 %	H302, H319, H335, H315, H317
Cumene hydroperoxide	80-15-9	201-254-7	< 1 %	H312, H373, H331, H302, H242, H411, H314

*** Classification:** For full text of the H-statements and other abbreviations see section 16 "Other information".
Substances without classification may have community workplace exposure limits available.

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Declaration of hazardous ingredients according to DPD (EC) No 1999/45

Ingredient:	CAS No.:	EC No.:	Content:	* Classification:
Lauryl methacrylate	142-90-5	205-570-6	<10 %	Xi; R36/37/38
Tetradecyl methacrylate	2549-53-3	219-835-9	<10 %	Xi; R36/37/38
Hexadecyl methacrylate	2495-27-4	219-672-3	<10 %	Xi; R36/37/38
Maleic acid	110-16-7	203-742-5	< 1 %	Xn; R22 Xi; R36/37/38 R43
Cumene hydroperoxide	80-15-9	201-254-7	< 1 %	T; R23 Xn; R21/22, R48/20/22; R7; R34 N; R51/53

*** Classification:** The full text of the Risk phrases in this section are listed in section 16 and apply only to individual constituents and not the finished product.

4. FIRST AID MEASURES

- Inhalation:** Vapors may cause drowsiness and dizziness.
Move the exposed person to fresh air. If symptoms persist, seek medical advice.
- Skin contact:** Prolonged or repeated contact may cause skin irritation. Rash, Urticaria.
Rinse with running water and soap. Seek medical advice.
- Eye contact:** Prolonged or repeated contact may cause eye irritation.
Rinse the eye with water immediately.
Continue to rinse for at least 10 minutes and get medical attention if necessary.
- Ingestion:** Rinse out mouth, drink 1-2 glasses of water, do not induce vomiting.
Seek medical advice.

5. FIRE-FIGHTING MEASURES

- Extinguishing Media:** Extinguish with foam, carbon dioxide, dry powder.
- Special hazards:** Oxides of carbon, oxides of nitrogen, irritating organic vapors.
- Advice for firefighters:** Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

6. ACCIDENTAL RELEASE MEASURES

- Personal Precautions:** Avoid skin and eye contact. Ensure adequate ventilation.
- Environmental Precautions:** Prevent entry into drains and watercourses.
- Clean-up methods:** For small spills wipe up with paper towel and place in container for disposal.
For large spills absorb onto inert absorbent material and place in sealed container for disposal.

7. HANDLING AND STORAGE

- Handling:** Use only in well-ventilated areas. Prolonged or repeated skin contact should be avoided to minimise any risk of sensitisation.
- Hygiene measures:** Wash hands before work breaks and after finishing work.
Do not eat, drink or smoke while working.
Good industrial hygiene practices should be observed.
- Storage:** Store in original containers at 8-21°C (46.4-69.8°F) and do not return residual materials to containers as contamination may reduce the shelf life of the bulk product.

LOCTITE THREAD SEALANT 557**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

- Respiratory protection:** Use only in well-ventilated areas. Filter type: A
- Hand protection:** The use of chemical resistant gloves such as Nitrile are recommended.
Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.
Chemical-resistant protective gloves (EN 374).
Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374): nitrile rubber (NBR; ≥ 0.4 mm thickness). Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): nitrile rubber (NBR; ≥ 0.4 mm thickness)
This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances.
- Eye protection:** Wear protective glasses.
- Skin protection:** Wear suitable protective clothing.
- General protection and hygiene measures:** Good industrial hygiene practices should be observed.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance:** Paste
- Colour:** Yellow.
- Odour:** Mild
- pH-value:** 3 - 6
- Initial boiling point:** Not determined
- Flash point:** No data available / Not applicable
- Vapour pressure:** <5mm hg 27 °C (80.6 °F)
- Density:** 1.15 – 1.20 g/cm³
- Solubility (qualitative):** Slight
- Explosive limits:** No data available / Not applicable
- Evaporation rate:** Not available

10. STABILITY AND REACTIVITY

- Reactivity:** Reaction with strong acids. Reacts with strong oxidants.
- Chemical stability:** Stable under normal conditions of storage and use.
- Materials to avoid:** Reacts with strong oxidants.
- Conditions to avoid:** Stable under normal conditions of storage and use.
- Incompatible materials:** None if used properly.
- Hazardous decomposition products:** Irritating organic vapours, carbon oxides.

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11. TOXICOLOGICAL INFORMATION

General information: The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Oral toxicity: This material is considered to have low toxicity if swallowed.

Inhalative toxicity: May cause irritation to respiratory system.

Skin irritation: Prolonged or repeated contact may cause skin irritation.

Eye irritation: Avoid eye contact.

Sensitising: May cause sensitisation by skin contact.

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Cumene hydroperoxide 80-15-9	LD50 LC50 LD50	550 mg/kg 220 ppm 500 mg/kg	oral inhalation dermal	4h	rat rat rat	

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Cumene hydroperoxide 80-15-9	corrosive		rabbit	

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Cumene hydroperoxide 80-15-9	positive	bacterial reverse mutation assay (e.g Ames test)	without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Cumene hydroperoxide 80-15-9	negative	derma		mouse	

12. ECOLOGICAL INFORMATION

General information: Cured Loctite products are typical polymers and do not pose any immediate environmental hazards. Precautions required with respect to Environmental Hazards of articles in which this product is used should be considered.
The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Ecotoxicity: Do not empty into drains / surface water / ground water.

Mobility: Cured adhesives are immobile.

Persistence and Biodegradability: The product is not biodegradable.

Bioaccumulative potential: No data available.

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Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Maleic acid 110-16-7	LC50	> 245 mg/l	Fish	48 h	Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test) OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) OECD Guideline 201 (Alga, Growth Inhibition Test)
Maleic acid 110-16-7	EC50	245 mg/l	Daphnia	24 h	Daphnia magna	
Cumene hydroperoxide 80-15-9	LC50	3,9 mg/l	Fish	96 h	Oncorhynchus mykiss	
Cumene hydroperoxide 80-15-9	EC50	18 mg/l	Daphnia	48 h	Daphnia magna	
Cumene hydroperoxide 80-15-9	ErC50	3,1 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	

Persistence and degradability

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Maleic acid 110-16-7	readily biodegradable	aerobic	87 - 88 %	EU Method C.4-E (Determination of the "Ready" Biodegradability Closed Bottle Test)
Cumene hydroperoxide 80-15-9			18%	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)

Bioaccumulative potential /12.4. Mobility in soil

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Species	Method
Maleic acid 110-16-7	-0.48			
Cumene hydroperoxide 80-15-9		9.1	Calculation	OECD Guideline 305 (Bioconcentration: Flow through Fish Test)
Cumene hydroperoxide 80-15-9	2.16			

13. DISPOSAL CONSIDERATIONS

- Product disposal:** Dispose of in accordance with local and national regulations.
Contribution of this product to waste is very insignificant in comparison to article in which it is used
- Disposal of packaging:** After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.
- Waste code:** 08 04 09 waste adhesives and sealants containing organic solvents and other dangerous substances

14. TRANSPORT INFORMATION

- Classification:** This product is classified as non hazardous for transport by road, rail, sea and air.

15. REGULATORY INFORMATION

- VOC content:** < 5 % (1999/13/EC)

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16. OTHER INFORMATION

The labelling of the product is indicated in Section 2.

The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

R21/22	Harmful in contact with skin and if swallowed.
R22	Harmful if swallowed.
R23	Toxic by inhalation.
R34	Causes burns.
R36/37/38	Irritating to eyes, respiratory system and skin.
R43	May cause sensitisation by skin contact.
R48/20/22	Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R7	May cause fire.
H242	Heating may cause a fire.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

This safety data sheet was prepared in accordance with Council Directive 67/548/EEC and subsequent amendments, and Commission Directive 1999/45/EC.

DISCLAIMER

Every effort has been made to ensure that this information is accurate and up to date. , Users are reminded that they should ensure that they have retained or internally circulated the most up to date copy as provided to the persons or work locations which require them. , No warranty is implied or given as to suitability for use for any activity which is not covered by either the technical data sheet or restrictions of use as above.

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