



Safety Data Sheet in compliance with Indian Manufacture, Storage and Import of Hazardous Chemical (Amendment) Rules, 2000

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LOCTITE 574

SDS No. : 153497

V001.3

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

LOCTITE 574

Material: 267761

Relevant identified uses of the substance or mixture and uses advised against

Intended use:
Anaerobic Sealant

Identification of manufacturer, importer or distributor:

Manufacturer: Henkel Adhesives Technologies India Pvt. Ltd. D3/D4, MIDC, Jejuri - 412303 India. TEL : +91 9272203768 FAX : +91 2115 253248, Website www.henkel.com

Emergency telephone number

IN HAT: +91 9272203768

In case of any emergency call Poison Information Centre, JSS Hospital, Mysore: Toll Free No: 1800-425-0207/Mobile: +91 8892 42 5667

SECTION 2: Hazards identification

Classification of the substance or mixture

Classification (DPD):

Sensitizing
R43 May cause sensitisation by skin contact.

Label elements

Label elements (DPD):

Risk phrases:
R43 May cause sensitisation by skin contact.

Safety phrases:
S24 Avoid contact with skin.
S37 Wear suitable gloves.
S60 This material and its container must be disposed of as hazardous waste.

Other hazards

None if used properly.

SECTION 3: Composition/information on ingredients

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

Hazardous components CAS-No.	EC Number	content	Classification
Decan-1-ol 112-30-1	203-956-9	>= 1 - <= 20 %	Xi - Irritant; R36
Cumene hydroperoxide 80-15-9	201-254-7	>= 0,1 - <= 10 %	T - Toxic; R23 Xn - Harmful; R21/22, R48/20/22 C - Corrosive; R34 O - Oxidizing; R7 N - Dangerous for the environment; R51/53
Acetic acid, 2-phenylhydrazide 114-83-0	204-055-3	>= 0,1 - <= 5 %	Xn - Harmful; R22, R40 Xi - Irritant; R36/37/38, R43
Maleic acid 110-16-7	203-742-5	>= 0,1 - <= 5 %	Xn - Harmful; R21/22 Xi - Irritant; R36/37/38, R43
N,N'-Ethane-1,2-diylbis(12- hydroxyoctadecan-1-amide) 123-26-2	204-613-6	>= 0,1 - <= 5 %	Xi - Irritant; R43 R53

For full text of the R-Phrases indicated by codes see section 16 'Other Information'.
Substances without classification may have community workplace exposure limits available.

Section 4. First aid measures

Inhalation:	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. If symptoms develop and persist, get medical attention.
Skin contact:	Remove contaminated clothing and footwear. Wash with soap and water. If symptoms develop and persist, get medical attention. Wash clothing before reuse.
Eye contact:	Flush with copious amounts of water, preferably, lukewarm water for at least 15 minutes, holding eyelids open all the time. Get medical attention.
Ingestion:	Do not induce vomiting. Keep individual calm. Get medical attention.
Symptoms/effects, acute and delayed:	Eye, skin, and respiratory disorders.

Section 5. Fire fighting measures

Suitable extinguishing media:	Carbon dioxide, foam, powder
Improper extinguishing media:	None known
Specific hazards arising from the chemical:	Do not expose to direct heat.
Special protection equipment and precautions for firefighters:	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.
Hazardous combustion products:	Oxides of carbon, oxides of nitrogen, irritating organic vapors.

Section 6. Accidental release measures

Personal precautions:	Avoid skin and eye contact. Ensure adequate ventilation. See advice in section 8
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Environmental precautions:	Do not let product enter drains.
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. Dispose of contaminated material as waste according to Section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Use only in well-ventilated areas.

Prolonged or repeated skin contact should be avoided to minimise any risk of sensitisation.

Conditions for safe storage, including any incompatibilities

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.

Section 8. Exposure controls / personal protection

Respiratory protection:	In case of aerosol formation, we recommend wearing of appropriate respiratory protection equipment with ABEK P2 filter (EN 14387). This recommendation should be matched to local conditions.
Hand protection:	The use of chemical resistant gloves such as Nitrile is recommended. Please note that in practice the working life of chemical resistant gloves may be considerably reduced as a result of many influencing factors (e.g. temperature). Suitable risk assessment should be carried out by the end user. 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. 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.
Eye protection:	Wear protective glasses.
Body protection:	Wear suitable protective clothing.
Engineering controls:	No specific ventilation requirements noted, but forced ventilation may still be required if concentrations exceed occupational exposure limits.
Hygienic measures:	Good industrial hygiene practices should be observed. Do not eat, drink or smoke while working. Wash hands before work breaks and after finishing work.

SECTION 9: Physical and chemical properties

Appearance:	Orange paste
Odor:	mild
Odor threshold (CA):	No data available.
pH:	Not available.
Melting point / freezing point:	No data available.
Specific gravity:	1,1518
Boiling point:	> 150 °C (> 302 °F)
Flash point:	No data available.
Evaporation rate:	Not available.
Flammability (solid, gas):	No data available.
Lower explosive limit:	No data available.
Upper explosive limit:	No data available.
Vapor pressure: (; 27 °C (80.6 °F))	< 5 mm hg
Vapor density:	Not available.
Density:	1,15 g/cm ³
Solubility:	Solvent: Water, Slight
Partition coefficient: n- octanol/water:	No data available.
Auto ignition:	Not available.
Decomposition temperature:	
Viscosity:	No data available.
VOC content:	0,6 % 6,01 g/l

Section 10. Stability and reactivity

Reactivity/Incompatible materials:	Strong oxidizing agents. Reducing agents. Acids. Alkalis. Oxygen scavengers.
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	Will not occur.
Conditions to avoid:	Stable
Hazardous decomposition products:	Irritating organic vapours.

SECTION 11: Toxicological information**Information on toxicological effects**

General toxicological information:
No toxicological data available.

Acute oral toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Decan-1-ol 112-30-1	LD50	> 5.000 mg/kg	oral		rat	EPA OPPTS 870.1100 (Acute Oral Toxicity)
Cumene hydroperoxide 80-15-9	LD50	550 mg/kg	oral		rat	not specified
Acetic acid, 2-phenylhydrazide 114-83-0	LD50	270 mg/kg	oral		rat	not specified
Maleic acid 110-16-7	LD50	708 mg/kg	oral		rat	not specified
N,N'-Ethane-1,2-diylbis(12-hydroxyoctadecan-1- amide) 123-26-2	LD50	> 2.000 mg/kg	oral			

Acute inhalative toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Decan-1-ol 112-30-1	Acute toxicity estimate (ATE)	5,1 mg/l	inhalation			Expert judgement
Decan-1-ol 112-30-1	LC50	4 mg/l		2 h	mouse	

Acute dermal toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Decan-1-ol 112-30-1	LD50	> 5.000 mg/kg	dermal		rat	EPA OPPTS 870.1200 (Acute Dermal Toxicity)
Cumene hydroperoxide 80-15-9	LD50	1.200 - 1.520 mg/kg	dermal			not specified
Maleic acid 110-16-7	LD50	1.560 mg/kg	dermal		rabbit	not specified

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Decan-1-ol 112-30-1	not irritating	4 h	rabbit	EPA OPPTS 870.2500 (Acute Dermal Irritation)
Cumene hydroperoxide 80-15-9	corrosive		rabbit	Draize Test
Maleic acid 110-16-7	irritating	24 h	human	Patch Test

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Decan-1-ol 112-30-1	irritating		rabbit	EPA OPPTS 870.2400 (Acute Eye Irritation)
Maleic acid 110-16-7	highly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Decan-1-ol 112-30-1	not sensitising	Buehler test	guinea pig	EPA OPPTS 870.2600 (Skin Sensitisation)
Maleic acid 110-16-7	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Maleic acid 110-16-7	sensitising	Mouse local lymphnode assay (LLNA)	guinea pig	OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Decan-1-ol 112-30-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		Henkel 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	dermal		mouse	not specified
Maleic acid 110-16-7	negative	bacterial reverse mutation assay (e.g Ames test)	no data		Ames Test
	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)

Carcinogenicity:

Hazardous components CAS-No.	Result	Species	Sex	Exposure time Frequency of treatment	Route of application	Method
Maleic acid 110-16-7	not carcinogenic	rat	male/female	2 y daily	oral: feed	OECD Guideline 451 (Carcinogenicity Studies)

Repeated dose toxicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Decan-1-ol 112-30-1	NOAEL=1.000 mg/kg	dermal	6 hours 5d/w over 13 consecutive weeks	rat	OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)
Cumene hydroperoxide 80-15-9		inhalation: aerosol	6 h/d 5 d/w	rat	not specified
Maleic acid 110-16-7	NOAEL=>= 40 mg/kg	oral: feed	90 d daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

SECTION 12: Ecological information**General ecological information:**

Cured Loctite products are typical polymers and do not pose any immediate environmental hazards.
Do not empty into drains / surface water / ground water.

Other adverse effects:

Do not empty into drains, soil or bodies of water.

Toxicity

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Decan-1-ol 112-30-1	LC50	2,2 - 2,5 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
	NOEC	0,26 mg/l	Fish	33 d	Pimephales promelas	OECD Guideline 210 (fish early lite stage toxicity test)
Decan-1-ol 112-30-1	EC50	2,9 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Decan-1-ol 112-30-1	EC50	1,5 mg/l	Algae	72 h	Desmodesmus subspicatus	QSAR (Quantitative Structure Activity Relationship)
	EC10	0,7 mg/l	Algae	72 h	Desmodesmus subspicatus	QSAR (Quantitative Structure Activity Relationship)
Decan-1-ol 112-30-1	EC0	10.000 mg/l	Bacteria	30 min	Pseudomonas putida	DIN 38412, part 27 (Bacterial oxygen consumption test)
Decan-1-ol 112-30-1	NOEC	0,11 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Cumene hydroperoxide 80-15-9	LC50	3,9 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Cumene hydroperoxide 80-15-9	EC 50	7 mg/l	Daphnia	24 h	Water flea (Daphnia magna)	
	EC50	18 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Cumene hydroperoxide 80-15-9	ErC50	3,1 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Cumene hydroperoxide 80-15-9	EC10	70 mg/l	Bacteria	30 min		not specified
Maleic acid 110-16-7	LC50	> 245 mg/l	Fish	48 h	Leuciscus idus	DIN 38412-15
Maleic acid 110-16-7	EC50	42,81 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Maleic acid 110-16-7	EC50	74,35 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
N,N'-Ethane-1,2-diylbis(12- hydroxyoctadecan-1-amide) 123-26-2	LL50	> 10 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
N,N'-Ethane-1,2-diylbis(12- hydroxyoctadecan-1-amide) 123-26-2	EL50	> 10 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
N,N'-Ethane-1,2-diylbis(12- hydroxyoctadecan-1-amide) 123-26-2	EC50	> 100 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
	NOEC	100 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)

Persistence and degradability

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Decan-1-ol 112-30-1	readily biodegradable	aerobic	88 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Cumene hydroperoxide 80-15-9		no data	0 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
Maleic acid 110-16-7	readily biodegradable	aerobic	97,08 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
N,N'-Ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) 123-26-2	not readily biodegradable.	aerobic	22 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)

Bioaccumulative potential / Mobility in soil

Hazardous components CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Decan-1-ol 112-30-1		20		calculated		QSAR (Quantitative Structure Activity Relationship)
Decan-1-ol 112-30-1	4,5				25 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
Cumene hydroperoxide 80-15-9		9,1		calculation		OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)
Cumene hydroperoxide 80-15-9	2,16					not specified
Acetic acid, 2-phenylhydrazide 114-83-0	0,74					not specified
Maleic acid 110-16-7	-1,3				20 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
N,N'-Ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) 123-26-2	5,86					OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)

Results of PBT and vPvB assessment

Hazardous components CAS-No.	PBT/vPvB
Decan-1-ol 112-30-1	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Cumene hydroperoxide 80-15-9	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Maleic acid 110-16-7	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
N,N'-Ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) 123-26-2	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

Section 13. Disposal considerations

Waste disposal of product: Dispose of in accordance with local and national regulations.

Disposal for uncleaned package: Disposal must be made according to official regulations.

Section 14. Transport information

General information:

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

Section 15. Regulations - classification and identification

Decan-1-ol	IBC Code. International Bulk Chemical Code, Chapter 17, Minimum Requirements IBC Code. International Bulk Chemical Code, Chapter 17, Minimum Requirements IBC Code. International Bulk Chemical Code, Chapter 17, Minimum Requirements
Maleic acid	American Cleaning Institute (ACI) Cleaning Product Ingredient Inventory

SECTION 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 Irritating to eyes.
- R36/37/38 Irritating to eyes, respiratory system and skin.
- R40 Limited evidence of a carcinogenic effect.
- 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.
- R53 May cause long-term adverse effects in the aquatic environment.
- R7 May cause fire.

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.

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.

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