

LOCTITE 243 BO Known as Threadlocker

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 05/04/2024 Revision date: 23/07/2025 Supersedes: 27/03/2024 Version: 3.1
SDS No: 114576-0265a



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

1.1. Product identifier

Product form : Mixture
Product name : LOCTITE 243 BO Known as Threadlocker
Product code : S.14755

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Threadlocker

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Distributor

Sparex Limited c/o AGCO SAS
AGCO ENNERY PACKAGING CENTER
5299 RUE THOMAS EDISON (BAT. C)
57365 ENNERY
FRANCE
T +33 387724100
Sparex@gbk-ingelheim.de, www.sparex.com

Manufacturer

Henkel AG & Co. KGaA
Henkelstr. 67
40589 Düsseldorf
Germany
T +49 211 797 0, F +49 211 798 2009
ua-productsafety.de@henkel.com

1.4. Emergency telephone number

Emergency number : Emergency CONTACT (24-Hour-Number): GBK GmbH +49 (0)6132-84463

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin sensitisation, Category 1 H317
Hazardous to the aquatic environment – Chronic Hazard, Category 3 H412
Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) :

Warning

Contains :

Tetramethylene dimethacrylate; 2,2'-ethylenedioxydiethyl dimethacrylate; [2-[(2-methyl-1-oxoallyl)oxy]ethyl] hydrogen maleate; maleic anhydride

Hazard statements (CLP) :

H317 - May cause an allergic skin reaction.
H412 - Harmful to aquatic life with long lasting effects.

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Precautionary statements (CLP) : P273 - Avoid release to the environment.
P280 - Wear eye protection, face protection, protective gloves.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

2.3. Other hazards

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	2,4,6-triallyloxy-1,3,5-triazine (101-37-1)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	2,4,6-triallyloxy-1,3,5-triazine (101-37-1)

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Tetramethylene dimethacrylate	CAS-No.: 2082-81-7 EC-No.: 218-218-1 REACH-no: 01-2119967415-30	$\geq 20 - < 40$	Skin Sens. 1B, H317
2,4,6-triallyloxy-1,3,5-triazine	CAS-No.: 101-37-1 EC-No.: 202-936-7 REACH-no: 01-2119489756-17	$\geq 5 - < 10$	Acute Tox. 4 (Oral), H302 Aquatic Chronic 2, H411
2,2'-ethylenedioxydiethyl dimethacrylate	CAS-No.: 109-16-0 EC-No.: 203-652-6 REACH-no: 01-2119969287-21	$\geq 1 - < 5$	Skin Sens. 1B, H317
[2-[(2-methyl-1-oxoallyl)oxy]ethyl] hydrogen maleate	CAS-No.: 51978-15-5 EC-No.: 257-569-5	$\geq 0.1 - < 1$	Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317
methacrylic acid; 2-methylpropenoic acid (Note D)	CAS-No.: 79-41-4 EC-No.: 201-204-4 EC Index-No.: 607-088-00-5	$\geq 0.1 - < 1$	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Acute Tox. 3 (Dermal), H311 (ATE=300 mg/kg bodyweight) Acute Tox. 4 (Inhalation), H332 (ATE=1.5 mg/l/4h) Skin Corr. 1A, H314 Eye Dam. 1, H318 STOT SE 3, H335

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
maleic anhydride	CAS-No.: 108-31-6 EC-No.: 203-571-6 EC Index-No.: 607-096-00-9 REACH-no: 01-2119472428-31	≥ 0.001 – < 0.01	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) STOT RE 1, H372 Skin Corr. 1B, H314 Eye Dam. 1, H318 Resp. Sens. 1, H334 Skin Sens. 1A, H317 EUH071

Specific concentration limits:		
Name	Product identifier	Specific concentration limits (%)
methacrylic acid; 2-methylpropenoic acid	CAS-No.: 79-41-4 EC-No.: 201-204-4 EC Index-No.: 607-088-00-5	(1 ≤ C ≤ 100) STOT SE 3; H335
maleic anhydride	CAS-No.: 108-31-6 EC-No.: 203-571-6 EC Index-No.: 607-096-00-9 REACH-no: 01-2119472428-31	(0.001 ≤ C ≤ 100) Skin Sens. 1A; H317

Note D: Certain substances which are susceptible to spontaneous polymerisation or decomposition are generally placed on the market in a stabilised form. It is in this form that they are listed in Part 3. However, such substances are sometimes placed on the market in a non-stabilised form. In this case, the supplier must state on the label the name of the substance followed by the words 'non-stabilised'.

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

No additional information available

4.2. Most important symptoms and effects, both acute and delayed

No additional information available

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

No additional information available

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

No additional information available

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up

No additional information available

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

No additional information available

7.2. Conditions for safe storage, including any incompatibilities

No additional information available

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

methacrylic acid; 2-methylpropenoic acid (79-41-4)	
Ireland - Occupational Exposure Limits	
Local name	Methacrylic acid
OEL TWA	70 mg/m ³
	20 ppm
OEL STEL	140 mg/m ³
	40 ppm
Remark	Advisory OELV (Advisory Occupational Exposure Limit Values)
Regulatory reference	Chemical Agents Code of Practice 2024
maleic anhydride (108-31-6)	
Ireland - Occupational Exposure Limits	
Local name	Maleic anhydride
OEL TWA	0.01 ppm IFV (Inhlabl Fraction and Vapour)

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maleic anhydride (108-31-6)	
Remark	Advisory OELV (Advisory Occupational Exposure Limit Values), Sens (In the workplace, respiratory or dermal exposures to sensitising agents may occur. Sensitisers may evoke respiratory or dermal reactions, e.g. asthma, rhinitis and allergic contact dermatitis. The "sens" notation alone does not distinguish between respiratory or dermal sensitisation. Chemical agents that are sensitisers present special problems in the workplace. Should an employee become sensitised, subsequent exposure may cause intense responses, even at low exposure concentrations well below the OELV. Exposure should be eliminated or significantly reduced through control measures such as engineering and process controls and use of personal protective equipment (PPE))
Regulatory reference	Chemical Agents Code of Practice 2024

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No additional information available

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

No additional information available

8.2.2.2. Skin protection

No additional information available

8.2.2.3. Respiratory protection

No additional information available

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Blue
Odour	: acrylic. Mild
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: > 150 °C
Flammability	: Not available
Lower explosive limit (LEL)	: Not available
Upper explosive limit (UEL)	: Not available
Flash point	: > 100 °C
Auto-ignition temperature	: Not available

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Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: > 20.5 mm ² /s (40°C)
Viscosity, dynamic	: 1300 – 3000 mPa·s
Solubility	: Water: Easily soluble
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: < 0.1 mm Hg (27 °C)
Vapour pressure at 50°C	: Not available
Density	: 1.08 g/cm ³ (20°C)
Relative density	: Not available
Relative vapour density at 20°C	: 1
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

VOC content	: < 3 %
Additional information	: Solidifying temperature : < -30 °C

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

No additional information available

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)

2,4,6-triallyloxy-1,3,5-triazine (101-37-1)	
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
2,2'-ethylenedioxydiethyl dimethacrylate (109-16-0)	
LD50 oral	8700 mg/kg

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2,2'-ethylenedioxydiethyl dimethacrylate (109-16-0)

LD50 dermal	2500 mg/kg
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maleic anhydride (108-31-6)

LD50 dermal rabbit	2620 mg/kg bodyweight Animal: rabbit, Animal sex: female, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
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Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met)
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)

2,4,6-triallyloxy-1,3,5-triazine (101-37-1)

LOAEL (oral, rat, 90 days)	120 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents), Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents)
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NOAEL (oral, rat, 90 days)	30 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents), Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents)
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2,2'-ethylenedioxydiethyl dimethacrylate (109-16-0)

LOAEC (inhalation, rat, gas, 90 days)	350 ppm Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study), Remarks on results: other:
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NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
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NOAEC (inhalation, rat, gas, 90 days)	100 ppm Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study), Remarks on results: other:
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maleic anhydride (108-31-6)

NOAEL (oral, rat, 90 days)	≈ 10 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 452 (Chronic Toxicity Studies)
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NOAEC (inhalation, rat, vapour, 90 days)	≈ 0.0033 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
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Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
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11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2. Other information

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long-term (chronic)	: Harmful to aquatic life with long lasting effects.

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2,4,6-triallyloxy-1,3,5-triazine (101-37-1)	
LC50 fish 1	7.05 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 Daphnia 1	40 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	10.52 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	5.5 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
2,2'-ethylenedioxydiethyl dimethacrylate (109-16-0)	
LC50 fish 1	16.4 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	72.8 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
ErC50 algae	100 mg/l
LOEC (chronic)	100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	32 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic crustacea	32 mg/l
NOEC chronic algae	18.6 mg/l
maleic anhydride (108-31-6)	
LC50 fish 1	75 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
LC50 - Fish [2]	75 mg/l Test organisms (species): Lepomis macrochirus
EC50 Daphnia 1	330 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 150 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	2,4,6-triallyloxy-1,3,5-triazine (101-37-1)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	2,4,6-triallyloxy-1,3,5-triazine (101-37-1)

12.6. Endocrine disrupting properties

No additional information available

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12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

No additional information available

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not regulated for transport				
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation (EU) 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation (EU) 2019/1021 on persistent organic pollutants)

Ozone Regulation (2024/590)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

VOC Directive (2004/42)

VOC content : < 3 %

Explosives Precursors Regulation (EU 2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (EC 273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of H- and EUH-statements:	
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Resp. Sens. 1	Respiratory sensitisation, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Sens. 1	Skin sensitisation, Category 1

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Full text of H- and EUH-statements:	
Skin Sens. 1A	Skin sensitisation, category 1A
Skin Sens. 1B	Skin sensitisation, category 1B
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H372	Causes damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH071	Corrosive to the respiratory tract.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Skin Sens. 1	H317	Calculation method
Aquatic Chronic 3	H412	Calculation method

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should therefore not be construed as guaranteeing any specific property of the product.