

## 1. Identification

### Product identifier

Trade name: 636K12 - Loctite 245

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

General use: Anaerobic adhesive, Screw Locking Agent, for orthopedic procedures  
Reserved for industrial and professional use.

### Details of the supplier of the safety data sheet

Company name: Otto Bock Health Care  
Street/POB-No.: 3820 W. Great Lakes Drive  
Zip code, city: Salt Lake City, UT 84120  
USA

WWW: [www.ottobockus.com](http://www.ottobockus.com)

Telephone: +1 (801) 956-2400

Telefax: +1 (801) 956-2401

Department responsible for information:

Quality Department,  
Telephone: +1 (801) 954-2304 (7 AM – 3 PM, Mountain Time),  
Email: [USRegulatory@ottobock.com](mailto:USRegulatory@ottobock.com)

Additional information:

Corporate headquarters:  
Ottobock SE & Co. KGaA  
Max-Näder-Straße 15  
Duderstadt  
Germany

### Emergency telephone number

CHEMTREC, Telephone: +1 (800) 424-9300

## 2. Hazard identification

### Classification of the substance or mixture

Skin Irritation - Category 2

Causes skin irritation.

Eye Irritation - Category 2A

Causes serious eye irritation.

Specific Target Organ Toxicity (Repeated Exposure) - Category 2

May cause damage to organs through prolonged or repeated exposure.

Aquatic toxicity - chronic - Category 3

Harmful to aquatic life with long lasting effects.

### Label elements

Symbols:



Signal word:

**Warning**

Hazard statements:

Causes skin irritation.  
Causes serious eye irritation.  
May cause damage to organs through prolonged or repeated exposure.  
Harmful to aquatic life with long lasting effects.

Precautionary statements:

Do not breathe mist/vapors/spray.  
Avoid release to the environment.  
Wear protective gloves/protective clothing/eye protection.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Get medical advice/attention if you feel unwell.  
If eye irritation persists: Get medical advice/attention.

### 3. Composition/information on ingredients

#### Mixtures

Chemical characterization: Anaerobic sealants and adhesives

Relevant ingredients:

CAS No.	Designation	Concentration	Classification
CAS 80-15-9	Cumene hydroperoxide	< 3 %	Organic Peroxide - Category E. Acute Toxicity - oral - Category 4. Acute Toxicity - dermal - Category 4. Acute Toxicity - inhalative - Category 3. Skin Corrosion - Category 1B. Specific Target Organ Toxicity (Repeated Exposure) - Category 2. Aquatic toxicity - chronic - Category 2.
CAS 613-48-9	N,N-diethyl-p-toluidine	< 1 %	Acute Toxicity - oral - Category 3. Acute Toxicity - dermal - Category 3. Acute Toxicity - inhalative - Category 3. Specific Target Organ Toxicity (Repeated Exposure) - Category 2. Aquatic toxicity - chronic - Category 3.
CAS 609-72-3	N,N-Dimethyl-o-toluidine	< 1 %	Acute Toxicity - oral - Category 3. Acute Toxicity - dermal - Category 3. Acute Toxicity - inhalative - Category 3. Specific Target Organ Toxicity (Repeated Exposure) - Category 2. Aquatic toxicity - chronic - Category 3.

The actual concentration or concentration range is withheld as a trade secret.

Additional information: Contains Silicon dioxide: The maximum workplace exposure limits are, where necessary, listed in section 8.

### 4. First aid measures

General information: If medical advice is needed, have product container or label at hand. Take off contaminated clothing and wash it before reuse. First aider: Pay attention to self-protection!

In case of inhalation: Move victim to fresh air. Seek medical attention if problems persist.

Following skin contact: After contact with skin, wash immediately with soap and plenty of water. Seek medical attention if problems persist.

After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Subsequently consult an ophthalmologist.

After swallowing: Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Do not induce vomiting. Consult physician.

### Most important symptoms/effects, acute and delayed

Causes serious eye irritation. Conjunctivitis.  
Lengthy or repeated contact may cause skin irritation.

### Information to physician

Treat symptomatically.

## 5. Fire-fighting measures

### Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:

Extinguishing powder, foam, carbon dioxide

Extinguishing media which must not be used for safety reasons:

full water jet

### Specific hazards arising from the chemical

Emits toxic fumes under fire conditions.  
In case of fire may be liberated: Nitrogen oxides (NO<sub>x</sub>), carbon monoxide and carbon dioxide.

### Protective equipment and precautions for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation.  
Avoid contact with skin and eyes. Avoid breathing mist/vapors/spray. Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse. Keep unprotected people away.

Environmental precautions:

Do not allow to enter into ground-water, surface water or drains.

### Methods and material for containment and cleaning up

Methods for clean-up:

smaller amounts:

Collect spilled material using paper towels and dispose.

Large amounts:

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents) and place in closed containers for disposal. Special waste. Final cleaning: Remove residues with soap and water.

## 7. Handling and storage

### Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed.  
 Avoid contact with skin and eyes. Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse. Avoid breathing mist/vapors/spray.  
 Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Have eye wash bottle or eye rinse ready at work place.

### Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep only in the original container.  
 Do not return unused portions of product to original container.

Hints on joint storage: Keep away from food, drink and animal feedingstuffs.

## 8. Exposure controls/personal protection

### Control parameters

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
112945-52-5	Silicon dioxide	USA: IDLH: TWA	3,000 mg/m <sup>3</sup>
		USA: NIOSH: TWA	6 mg/m <sup>3</sup>
		USA: OSHA: TWA	20 mppcf
		USA: OSHA: TWA	80 mg/m <sup>3</sup> (total dust)

### Appropriate engineering controls

Provide for good ventilation or exhaust system or work with completely self-contained equipment.

### Personal protection equipment (PPE)

Respiratory protection: Use only in well-ventilated areas.  
 Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded.

Hand protection: Protective gloves according to OSHA Standard - 29 CFR: 1910.138.  
 Glove material: Nitrile rubber - Layer thickness: => 0.4 mm  
 Breakthrough time: >480 min.  
 Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010.

Body protection: Wear suitable protective clothing.

General hygiene considerations:

Avoid contact with skin and eyes. Take off contaminated clothing and wash it before reuse. Avoid breathing mist/vapors/spray.  
 Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Have eye wash bottle or eye rinse ready at work place.

### Environmental exposure controls

Refer to 6.: Section "Environmental precautions".

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Physical state at 68 °F and 101.3 kPa	liquid
Color:	blue clear
Odor:	characteristic
Odor threshold:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	> 392 °F
Flammability:	No data available
Explosion limits:	No data available
Flash point/flash point range:	> 212 °F
Evaporation rate:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH:	3 - 6
Viscosity:	No data available
Solubility:	in acetone miscible.
Water solubility:	immiscible
Partition coefficient: n-octanol/water:	No data available
Vapor pressure:	at 77 °F: < 0.1 hPa
Density:	at 68 °F: 1.08 g/mL
Vapor density:	No data available
Particle characteristics:	Not applicable

### Additional information

Additional information:	No data available
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## 10. Stability and reactivity

Reactivity:	Refer to subsection "Possibility of hazardous reactions".
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	No hazardous reaction when handled and stored according to provisions.
Conditions to avoid:	No data available
Incompatible materials:	No data available
Hazardous decomposition products:	No hazardous decomposition products when regulations for storage and handling are observed.

## 11. Toxicological information

### Information on toxicological effects

Toxicological effects: The statements are derived from the properties of the single components. No toxicological data is available for the product as such.

Acute toxicity (oral): Based on available data, the classification criteria are not met.

Acute toxicity (dermal): Based on available data, the classification criteria are not met.

Acute toxicity (inhalative): Lack of data.

Skin corrosion/irritation: Skin Irritation - Category 2 = Causes skin irritation.

Serious eye damage/irritation: Eye Irritation - Category 2A = Causes serious eye irritation.

Sensitisation to the respiratory tract: Lack of data.

Skin sensitisation: Lack of data.

Germ cell mutagenicity/Genotoxicity: Lack of data.

Carcinogenicity: Lack of data.

Reproductive toxicity: Lack of data.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Lack of data.

Specific target organ toxicity (repeated exposure): Specific Target Organ Toxicity (Repeated Exposure) - Category 2 = May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard: Lack of data.

Other information: Information about cumene hydroperoxide:  
 LD50 Rat, oral: 382 mg/kg  
 LD50 Rat, dermal: 530 - 1,060 mg/kg  
 ATE, dermal: 1,100 mg/kg (Data obtained by expert judgement.)

### Symptoms

May cause respiratory irritation. Cough, shortage of breath.

In case of inhalation: May cause irritations. Cough, shortage of breath

In case of ingestion: May cause irritations.

The following symptoms may occur: Gastric and intestinal problems.

After contact with skin: Lengthy or repeated contact may cause skin irritation.

After eye contact:

Upon direct contact with eyes may cause burning, tearing, redness. Conjunctivitis

## 12. Ecological information

### Ecotoxicity

Aquatic toxicity: Harmful to aquatic life with long lasting effects.

Information about cumene hydroperoxide: Fish toxicity:  
 LC50 Oncorhynchus mykiss: 3.9 mg/L/96h (OECD 203)

Daphnia toxicity:  
 EC50 Daphnia magna (Big water flea): 18 mg/L/48h (OECD 202)

Algae toxicity:  
 EC50 Pseudokirchneriella subcapitata (green algae), growth rate: 3.1 mg/L/72h

### Persistence and degradability

Further details: No data available

### Bioaccumulative potential

Partition coefficient: n-octanol/water:

No data available

### Mobility in soil

No data available

### Other adverse effects

General information: Do not allow to enter into ground-water, surface water or drains.

## 13. Disposal considerations

### Waste treatment methods

#### Product

Recommendation: Special waste. Dispose of waste according to applicable legislation.

#### Package

Recommendation:

Waste key number:

150104 metallic packaging.

150102 Plastic packaging.

Dispose of waste according to applicable legislation.

Handle contaminated packages in the same way as the substance itself.

## 14. Transport information

### UN number

DOT, IMDG, IATA-DGR: not applicable

### UN proper shipping name

DOT, IMDG, IATA-DGR: Not restricted

### Transport hazard class(es)

DOT, IMDG, IATA-DGR: not applicable

### Packing group

DOT, IMDG, IATA-DGR: not applicable

### Environmental hazards

Marine pollutant: no

### Transport in bulk according to IMO instruments

No data available

### Special precautions for user

#### USA: Department of Transportation (DOT)

Proper shipping name: Not restricted

#### Sea transport (IMDG)

Proper shipping name: Not restricted

Marine pollutant: no

#### Air transport (IATA)

Proper shipping name: Not restricted

#### Further information

No dangerous good in sense of these transport regulations.

## 15. Regulatory information

#### National regulations - U.S. Federal Regulations

Cumene hydroperoxide: TSCA Inventory: listed  
Clean Air Act:  
CAA SOCM Chemical: yes  
Other Environmental Laws:  
CERCLA: RQ 10 lbs.  
SARA Title III, Section 313, Toxic Release: NPFAS; De Minimis <=1.0 %;  
Thresholds 25000/10000 lbs  
OSHA Process Safety Management: Threshold 5000 lbs.

N,N-diethyl-p-toluidine: TSCA Inventory: listed

N,N-Dimethyl-o-toluidine: TSCA Inventory: listed

#### National regulations - U.S. State Regulations

Cumene hydroperoxide: New York Right-To-Know: listed

#### Further regulations, limitations and legal requirements

No data available

## 16. Other information

Text for labeling: Contains < 3 % Cumene hydroperoxide, < 1 % N,N-diethyl-p-toluidine, < 1 % N,N-Dimethyl-o-toluidine.

Revision date: 11/28/2025

Date of first version: 5/25/2003

Reason of change: General revision: Safety Data Sheet according to HCS 2024 (29 CFR 1910.1200)



Hazard rating systems:



**NFPA Hazard Rating:**

Health: 2 (Moderate)

Fire: 1 (Slight)

Reactivity: 0 (Minimal)

**HMIS Version III Rating:**

Health: 2 (Moderate)

Flammability: 1 (Slight)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

HEALTH	2
FLAMMABILITY	1
PHYSICAL HAZARD	0
	X

Abbreviations and acronyms:

Acute Toxicity: Acute toxicity  
 Aquatic toxicity - chronic: Hazardous to the aquatic environment - chronic  
 AS/NZS: Australian Standards/New Zealand Standards  
 ATE: Acute toxicity estimate  
 CAS: Chemical Abstracts Service  
 CFR: Code of Federal Regulations  
 CLP: Classification, Labelling and Packaging  
 DMEL: Derived minimal effect level  
 DNEL: Derived no-effect level  
 DOT: Department of Transportation's Safety Regulations (USA)  
 EC: European Community  
 EC50: Effective Concentration 50%  
 EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods  
 EN: European Standard  
 EQ: Excepted quantities  
 Eye Damage: Eye damage  
 Eye Irritation: Eye irritation  
 IATA: International Air Transport Association  
 IATA-DGR: International Air Transport Association – Dangerous Goods Regulations  
 IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
 IMDG Code: International Maritime Dangerous Goods Code  
 IMO: International Maritime Organization  
 LC50: Median lethal concentration  
 LD50: Lethal dose 50%  
 MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships  
 OECD: Organisation for Economic Co-operation and Development  
 OEL: Occupational Exposure Limit Value  
 Organic Peroxide: Organic peroxide  
 OSHA: Occupational Safety and Health Administration  
 PBT: Persistent, bioaccumulative and toxic  
 PNEC: Predicted no-effect concentration  
 Skin Corrosion: Skin corrosion  
 Skin Irritation: Skin irritation  
 STOT RE: Specific target organ toxicity - repeated exposure  
 STOT SE: Specific target organ toxicity - single exposure  
 TLV: Threshold Limit Value  
 TRGS: Technical Rules for Hazardous Substances  
 vPvB: Very persistent and very bioaccumulative  
 WEL: Workplace Exposure Limit

**Department issuing data sheet**

Contact person: see section 1: Department responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.