

## 1. Product and company identification

### Product identifier

Trade name: 636K13 - Loctite 241

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

General use: Anaerobe sealing 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  
Postal 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

Dept. 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 phone number

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

## 2. Hazards identification

### Emergency overview

Appearance: Form: liquid

Color: blue

Odor: characteristic

Classification: Acute Toxicity - inhalative - Category 4; Skin Irritation - Category 2; Eye Irritation - Category 2A; Specific Target Organ Toxicity (Single Exposure) - Category 3; Aquatic toxicity - chronic - Category 3;

Hazard symbols:



Signal word:

**Warning**

Hazard statements:

- Causes skin irritation.
- Causes serious eye irritation.
- Harmful if inhaled.
- May cause respiratory irritation.
- Harmful to aquatic life with long lasting effects.

Precautionary statements:

- Avoid breathing vapors.
- Use only outdoors or in a well-ventilated area.
- Avoid release to the environment.
- Wear protective gloves/protective clothing/eye protection/face protection.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

### Regulatory status

This material is considered hazardous by the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200) and SIMDUT in Canada.

### Hazards not otherwise classified

see section 11: Toxicological information

## 3. Composition / Information on ingredients

Chemical characterization: composition on the basis of 3,6,9-Trioxaundecamethylene bis(2-ethylhexanoate) (CAS: 18268-70-7)

Relevant ingredients:

CAS No.	Designation	Content	Classification
CAS 80-15-9	Cumene hydroperoxide	1 - 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	Diethyltoluidine	0.5 - 2 %	Acute Toxicity - inhalative - Category 4. Skin Irritation - Category 2. Eye Irritation - Category 2A. Specific Target Organ Toxicity (Repeated Exposure) - Category 2.
CAS 98-82-8	Cumene	0.1 - 1 %	Flammable Liquid - Category 3. Specific Target Organ Toxicity (Single Exposure) - Category 3. Aspiration Toxicity - Category 1. Aquatic toxicity - chronic - Category 2.
CAS 609-72-3	Dimethyltoluidine	0.1 - 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.

### 4. First aid measures

General information:	First aider: Pay attention to self-protection!
In case of inhalation:	Move victim to fresh air. Seek medical attention.
Following skin contact:	After contact with skin, wash immediately with soap and plenty of water. Consult a doctor if skin irritation persists.
After eye contact:	Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.
After swallowing:	Rinse mouth immediately and drink plenty of water. Do not induce vomiting. Consult physician.

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

In case of inhalation: Harmful by inhalation.  
Irritant, cough, shortness of breath, dyspnoea, cramp feeling in breast.  
In case of ingestion: May cause irritations.  
polyethylene glykol methacrylate: Potential health effects: gastrointestinal complaints.  
May cause irritations.  
After contact with skin:  
Frequently or prolonged contact with skin may cause dermal irritation.  
After eye contact: Irritant, conjunctivitis

#### Information to physician

Treat symptomatically.

### 5. Fire fighting measures

Flash point/flash point range:	> 212 °F
Auto-ignition temperature:	No data available
Suitable extinguishing media:	Extinguishing powder, foam, carbon dioxide.

#### 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 self-contained breathing apparatus.
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### 6. Accidental release measures

Personal precautions:	Avoid contact with skin and eyes. Provide adequate ventilation.
Environmental precautions:	Do not allow to enter into ground-water, surface water or drains.
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

### Handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed.  
Avoid contact with skin and eyes.

Specific use(s) Anaerobe sealing agent

### Storage

Requirements for storerooms and containers:

Keep only in the original container.  
storage temperature: 8°C - 21°C.  
Do not return unused portions of product to original container.

## 8. Exposure controls / personal protection

### Exposure guidelines

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
98-82-8	Cumene	USA: ACGIH: TWA	246 mg/m <sup>3</sup> ; 50 ppm
		USA: NIOSH: TWA	245 mg/m <sup>3</sup> ; 50 ppm
		USA: OSHA: TWA	245 mg/m <sup>3</sup> ; 50 ppm

### Engineering controls

To minimize skin contact, Loctite applicators are recommended.  
See also information in chapter 7, section storage.

### Personal protection equipment (PPE)

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

Skin 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.

Respiratory protection: Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded.  
Use filter type A (= against vapors of organic substances) according to OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2.

General hygiene considerations:  
When using do not eat, drink or smoke.  
Keep away from food and drinks.  
Avoid contact with skin and eyes.  
Wash hands before breaks and after work.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Appearance: Form: liquid  
Color: blue

Odor:	characteristic
Odor threshold:	No data available
pH value:	at 71.6 °F: 3 - 6
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flash point/flash point range:	> 212 °F
Evaporation rate:	No data available
Flammability:	No data available
Explosion limits:	No data available
Vapor pressure:	at 77 °F: 0.133 hPa
Vapor density:	No data available
Density:	at 77 °F: 1.08 g/mL (DIN 51757)
Solubility:	in acetone miscible.
Water solubility:	immiscible
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Thermal decomposition:	No data available
Additional information:	No data available

## 10. Stability and reactivity

Reactivity:	refer to 10.3
Chemical stability:	Product is stable under normal storage conditions.
Possibility of hazardous reactions	In case of a lack of air and/or the existence of metal, polymerization may occur. Product is sufficiently stabilized to ensure that, in normal use, premature polymerization does not occur.
Conditions to avoid:	peroxides. Reacts with strong alkalis and strong oxidizing agents.
Incompatible materials:	Peroxides, strong reducing agents.
Hazardous decomposition products:	In case of fire may be liberated: Nitrogen oxides (NO <sub>x</sub> ), carbon monoxide and carbon dioxide.
Thermal decomposition:	No data available

## 11. Toxicological information

### Toxicological tests

<p>Toxicological effects:</p>	<p>Acute toxicity (oral): Lack of data.</p> <p>Acute toxicity (dermal): Lack of data.</p> <p>Acute toxicity (inhalative): Acute Toxicity - inhalative - Category 4 = Harmful if inhaled.</p> <p>Skin corrosion/irritation: Skin Irritation - Category 2 = Causes skin irritation.</p> <p>Serious eye damage/irritation: Eye Irritation - Category 2A = Causes serious eye irritation.</p> <p>Sensitisation to the respiratory tract: Lack of data.</p> <p>Skin sensitisation: Lack of data.</p> <p>Germ cell mutagenicity/Genotoxicity: Lack of data.</p> <p>Carcinogenicity: Lack of data.</p> <p>Reproductive toxicity: Lack of data.</p> <p>Effects on or via lactation: Lack of data.</p> <p>Specific target organ toxicity (single exposure): Specific Target Organ Toxicity (Single Exposure) - Category 3 = May cause respiratory irritation.</p> <p>Specific target organ toxicity (repeated exposure): Lack of data.</p> <p>Aspiration hazard: Lack of data.</p>
<p>Other information:</p>	<p>Contains Cumene (CAS: 98-82-8): skin resorptive</p>

### Symptoms

In case of inhalation: Harmful by inhalation.  
 Irritant, cough, shortness of breath, dyspnoea, cramp feeling in breast.  
 In case of ingestion: May cause irritations.  
 polyethylene glykol methacrylate: Potential health effects: gastrointestinal complaints.  
 May cause irritations.  
 After contact with skin:  
 Frequently or prolonged contact with skin may cause dermal irritation.  
 After eye contact: Irritant, conjunctivitis

## 12. Ecological information

### Ecotoxicity

<p>Aquatic toxicity:</p>	<p>Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</p> <p>Cumene hydroperoxide:</p> <p>Algae toxicity: Pseudokirchneriella subcapitata (green algae): ErC 3,1 mg/L/72h, OECD 201</p> <p>Daphnia toxicity: Daphnia magna (Big water flea) EC50: 18 mg/L/48h, OECD 202</p> <p>Fish toxicity: Oncorhynchus mykiss LC50: 3,9 mg/L/96h, OECD 203</p>
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### Mobility in soil

No data available

### Persistence and degradability

<p>Further details:</p>	<p>Cumene hydroperoxide: Degradation: 18 % OECD 301 E</p> <p>Cumene: Degradation: 86 %</p>
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### Additional ecological information

Volatile organic compounds (VOC):

3 % by weight

General information:

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

## 13. Disposal considerations

### Product

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

### Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation.

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

## 14. Transport information

### 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:	<p>TSCA Inventory: listed</p> <p>TSCA HPVC: not listed</p> <p>Clean Air Act:</p> <p>SOCMI Chemical: yes</p> <p>Other Environmental Laws:</p> <p>CERCLA: RQ 10 lbs.</p> <p>RCRA Hazardous Wastes: Code U096</p> <p>SARA Title III Section 313, Toxic Release: Conc. 1.0% / Threshold Standard</p> <p>OSHA Process Safety Management: Threshold 5000 lbs.</p>
Diethyltoluidine:	<p>TSCA: listed</p>
Cumene:	<p>TSCA Inventory: listed</p> <p>TSCA HPVC: not listed</p> <p>Clean Air Act:</p> <p>Hazardous Air Pollutants: Code XOY</p> <p>SOCMI Chemical: yes</p> <p>Other Environmental Laws:</p> <p>CERCLA: RQ 5000 lbs.</p> <p>RCRA Hazardous Wastes: Code U055</p> <p>SARA Title III Section 313, Toxic Release: Conc. 1.0% / Threshold Standard</p> <p>NIOSH Recommendations:</p> <p>Occupational Health Guideline: 0159*</p>
Dimethyltoluidine:	<p>TSCA: listed</p>



## National regulations - U.S. State Regulations

Cumene hydroperoxide: California Proposition 65 code: -  
 Delaware Air Quality Management List:  
 DRQ: 10 - RQ State: Federal Regulations Apply  
 Massachusetts Haz. Substance codes: 5,6 F8 F9  
 New Jersey Extraordinarily Hazardous Substances:  
 NJ Threshold: 2500 - NJ Group: I - NJ Table: I Part D - NJ Basis: NFPA 325  
 New Jersey RTK Hazardous Substance:  
 DOT: 2116 - Sub No.: 0543 - TPQ: -  
 New York List of Hazardous Substances:  
 RQ-Air: 10 - RQ-Land: 10 - Note: No Note Associated with this chemical.  
 Pennsylvania Haz. Substance code: E

Cumene: California Proposition 65 code: -  
 Delaware Air Quality Management List:  
 DRQ: 5000 - RQ State: Federal Regulations Apply  
 Idaho Air Pollutant List:  
 Title 585: AAC: 12.25 - EL: 16.3 - OEL: 245 - Title 586: -  
 Main Hazardous Air Pollutants:  
 Me 2005: HAP - Hap Rpt: 2000  
 Massachusetts Haz. Substance codes: 2,4,5 F8 F9  
 Minnesota Haz. Substance:  
 Codes: AO - Ratings: - - Status: Air Pollutant Title III. TRI.  
 New Jersey RTK Hazardous Substance:  
 DOT: 1928 - Sub No.: 0542 - TPQ: -  
 New York List of Hazardous Substances:  
 RQ-Air: 5000 - RQ-Land: 1 - Note: No Note Associated with this chemical.  
 Pennsylvania Haz. Substance code: E  
 Washington Air Contaminant:  
 TWA: 50 ppm - 245 mg  
 Protective measures should be taken to prevent or reduce skin absorption.  
 California Proposition 65: cancer  
 Rhode Island HSL: listed

## National regulations - Great Britain

Hazchem-Code: -

## 16. Other information

Text for labeling: Contains 1 - 3 % Cumene hydroperoxide, 0.5 - 2 % Diethyltoluidine, 0.1 - 1 % Cumene, 0.1 - 1 % Dimethyltoluidine. Safety data sheet available on request.

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

Reason of change: Changes in section 1.3: Corporate headquarters

Date of first version: 5/25/2003

**Department issuing data sheet**

Contact person: see section 1: Dept. 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.