

1. Identification

Product identifier

Trade name: 636K36 - Fast Set Adhesive ergo.Smart.Pen

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

General use: Adhesive 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
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
Additional information: Corporate headquarters:
Ottobock SE & Co. KGaA
Max-Näder-Straße 15
Duderstadt
Germany

Emergency telephone number

CHEMTREC, Telephone: +1 (800) 424-9300
Transport:
CONSULTANK Lutz Harder GmbH (Contract QUALI003)
Telephone: +49 (0)178-4337434 (from USA: 01149 178 4337434)

2. Hazard identification

Classification of the substance or mixture

Skin Irritation - Category 2 Causes skin irritation.
Eye Irritation - Category 2 Causes serious eye irritation.
Specific Target Organ Toxicity (Single Exposure) - Category 3 May cause respiratory irritation.

Label elements

Symbols:



Signal word:

Warning

Hazard statements:
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.

Precautionary statements:
Avoid breathing vapors.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
IF ON SKIN: Wash with plenty of water/soap.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Store in a well-ventilated place. Keep container tightly closed.

3. Composition/information on ingredients

Mixtures

Chemical characterization: Adhesive based on cyanoacrylic acid ester

Relevant ingredients:

CAS No.	Designation	Concentration	Classification
CAS 7085-85-0	Ethyl 2-cyanoacrylate	>= 30 %	Skin Irritation - Category 2. Eye Irritation - Category 2. Specific Target Organ Toxicity (Single Exposure) - Category 3.

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

4. First aid measures

General information: Take off immediately all contaminated clothing.
In case of inhalation: Provide fresh air.
Seek medical aid in case of troubles.
Following skin contact: Immediately clean with water and soap or cleanse with acetone followed by thorough rinsing. If product comes into contact with lips, hold mouth open. Do not allow lips to contact one another.
Do not peel solidified product off the skin.
After eye contact: Keep eye wide open.
Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart.
Afterwards, consult an ophthalmologist immediately.
After swallowing: Do not induce vomiting. Consult physician.

Most important symptoms/effects, acute and delayed

[EtikettCyanacrylat]

Information to physician

Treat symptomatically.

5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:

Water spray jet, foam, dry chemical powder, carbon dioxide.

Extinguishing media which must not be used for safety reasons:

Full water jet

Specific hazards arising from the chemical

In case of fire, cyanides, nitrogen oxides (NO_x) and CO₂ may be released.

Danger of formation of toxic pyrolysis products.

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.

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:

Soak up with absorbent materials such as sand, siliceus earth, acid- or universal binder.

Store in special closed containers and dispose of according to ordinance.

7. Handling and storage

Precautions for safe handling

Advices on safe handling: Provide adequate ventilation. Do not breathe vapors.

Avoid contact with skin and eyes.

Precautions against fire and explosion:

Keep away from sources of ignition - No smoking.

Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep container tightly closed in a cool place.

Keep container dry. Keep only in the original container.

storage temperature: 41 - 77 °F. Protect from frost, heat and sunlight.

Keep locked up and out of the reach of children.

Hints on joint storage:

Do not store together with alkalis.

8. Exposure controls/personal protection

Control parameters

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
7085-85-0	Ethyl 2-cyanoacrylate	USA: ACGIH: STEL USA: ACGIH: TWA	1 ppm 0.2 ppm

Appropriate engineering controls

Provide good ventilation in the work area.

Where the atmosphere is very dry, the atmospheric moisture level must be raised to at least 50-60% relative humidity.

Personal protection equipment (PPE)

Respiratory protection: Use filter type A (= against vapors of organic substances) according to OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2.

Hand protection: Protective gloves according to OSHA Standard - 29 CFR: 1910.138.
Glove material: Nitrile rubber - Layer thickness: > 0.4
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

General hygiene considerations:

Cyanacrylate - Danger - skin and eyelids will stick together in seconds.
Keep out of the reach of children.
When using do not eat, drink or smoke.
Keep away from food, drink and animal feedingstuffs.
Wash hands before breaks and after work.
Do not breathe gas/fume/vapor/spray.

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:	colorless
Odor:	irritant
Odor threshold:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flammability:	No data available
Explosion limits:	No data available
Flash point/flash point range:	> 176 °F
Evaporation rate:	No data available

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Auto-ignition temperature:	not self-igniting
Decomposition temperature:	No data available
pH:	No data available
Dynamic viscosity:	70-120 mPa.s (Brookfield)
Water solubility:	hydrolysis
Partition coefficient: n-octanol/water:	No data available
Vapor pressure:	at 68 °F: Ethyl 2-cyanoacrylate: 0.12 hPa (DIN 51754)
Density:	at 68 °F: 1,06 g/ml
Vapor density:	No data available
Particle characteristics:	Not applicable

Additional information

Explosive properties: not applicable

Solvent content:
Solid content:

10. Stability and reactivity

Reactivity:	refer to 10.3
Chemical stability:	Product is stable under normal storage conditions.
Possibility of hazardous reactions:	Polymerization along with heat production.
Conditions to avoid:	Heat will be generated if water is added. Reacts violently with water. Protect from frost, heat and sunlight.
Incompatible materials:	Violent reaction with strong alkalis, oxidizing materials and amines. Reacts with alcohols, Acids. and alcohol
Hazardous decomposition products:	In case of fire may be liberated: Cyanide, nitrous fumes (NOx) and carbon monoxide.

11. Toxicological information

Information on toxicological effects

<p>Toxicological effects:</p>	<p>The statements are derived from the properties of the single components. No toxicological data is available for the product as such.</p> <p>Acute toxicity (oral): Lack of data.</p> <p>Acute toxicity (dermal): Lack of data.</p> <p>Acute toxicity (inhalative): Lack of data.</p> <p>Skin corrosion/irritation: Skin Irritation - Category 2 = Causes skin irritation.</p> <p>Serious eye damage/irritation: Eye Irritation - Category 2 = 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>Cyanacrylate - Danger - skin and eyelids will stick together in seconds.</p> <p>Information about Ethyl 2-cyanoacrylate (CAS 7085-85-0):</p> <p>LD50 Rat, oral: > 5,000 mg/kg (OECD 423)</p> <p>LD50 Rabbit, dermal: > 2,000 mg/kg (OECD 402)</p>

Symptoms

In case of inhalation: irritant
After contact with skin: irritant
After eye contact: irritant

12. Ecological information

Ecotoxicity

Further details: No data available

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 penetrate into soil, waterbodies or drains.

13. Disposal considerations

Waste treatment methods

Product

Recommendation: Dispose of waste according to applicable legislation.
This material and its container must be disposed of as hazardous waste.

Package

Recommendation: Dispose of waste according to applicable legislation.

14. Transport information

UN number

DOT: UN1993
IATA-DGR: UN 3334

UN proper shipping name

DOT: UN 1993, FLAMMABLE LIQUIDS, N.O.S. (Ethyl 2-cyanoacrylate)
IMDG: Not restricted
IATA-DGR: UN 3334, AVIATION REGULATED LIQUID, N.O.S. (Ethyl 2-cyanoacrylate)

Transport hazard class(es)

DOT: 3
IATA-DGR: Class 9

Packing group

DOT, IATA-DGR: III

Environmental hazards

Marine pollutant: no

Transport in bulk according to IMO instruments

No data available



Special precautions for user

USA: Department of Transportation (DOT)

Labels: 3
Symbols: G
Special Provisions: B1, B52, IB3, T4, TP1, TP29
Packaging – Exceptions: 150
Packaging – Non-bulk: 203
Packaging – Bulk: 242
Quantity limitations – Passenger aircraft / rail: 60 L
Quantity limitations – Cargo only: 220 L
Vessel stowage – Location: A

Sea transport (IMDG)

Proper shipping name: Not restricted
Marine pollutant: no

Air transport (IATA)

Proper shipping name: UN 3334, AVIATION REGULATED LIQUID, N.O.S. (Ethyl 2-cyanoacrylate)
Hazard label: Miscellaneous
Excepted Quantity Code: E1
Passenger and Cargo Aircraft: Ltd.Qty.: Pack.Instr. Y964 - Max. Net Qty/Pkg. 30 kg G
Passenger and Cargo Aircraft: Pack.Instr. 964 - Max. Net Qty/Pkg. 450 L
Cargo Aircraft only: Pack.Instr. 964 - Max. Net Qty/Pkg. 450 L
Special Provisions: A27
Emergency Response Guide-Code (ERG): 9A

15. Regulatory information

National regulations - U.S. Federal Regulations

Ethyl 2-cyanoacrylate: TSCA Inventory: listed

National regulations - U.S. State Regulations

No data available

Further regulations, limitations and legal requirements

No data available

16. Other information

Text for labeling: Contains >= 30 % Ethyl 2-cyanoacrylate.
Contains Ethyl 2-cyanoacrylate.
Revision date: 12/17/2025
Date of first version: 2/6/2009
Reason of change: General revision: Safety Data Sheet according to Hazardous Products Regulations (HPR) 2022
General revision: Safety Data Sheet according to HCS 2024 (29 CFR 1910.1200)

Hazard rating systems:



NFPA Hazard Rating:

Health: 1 (Slight)
Fire: 2 (Moderate)
Reactivity: 2 (Moderate)

HMIS Version III Rating:

Health: 1 (Slight)
Flammability: 2 (Moderate)
Physical Hazard: 2 (Moderate)
Personal Protection: X = Consult your supervisor

HEALTH	1
FLAMMABILITY	2
PHYSICAL HAZARD	2
	X

Abbreviations and acronyms:

AS/NZS: Australian Standards/New Zealand Standards
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
EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods
EN: European Standard
EQ: Excepted quantities
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
LD50: Lethal dose 50%
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
OSHA: Occupational Safety and Health Administration
PBT: Persistent, bioaccumulative and toxic
PNEC: Predicted no-effect concentration
Skin Irritation: Skin irritation
STOT SE: Specific target organ toxicity - single exposure
TRGS: Technical Rules for Hazardous Substances
UN: United Nations
vPvB: Very persistent and very bioaccumulative

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.