

636K36 - Fast Set Adhesive ergo.Smart.Pen

Material number 636K36

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1. Product and company 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
Postal 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 phone 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. Hazards identification

Emergency overview

Appearance: Physical state at 68 °F and 101.3 kPa: liquid
Form: liquid
Color: colorless
Odor: irritant
Classification: Skin Irritation - Category 2. Eye Irritation - Category 2A.
Specific Target Organ Toxicity (Single Exposure) - Category 3.

Hazard 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.
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.

Regulatory status

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

Hazards not otherwise classified

see section 11: Toxicological information

3. Composition / Information on ingredients

Chemical characterization: Adhesive based on cyanoacrylic acid ester

Relevant ingredients:

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

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

Flash point/flash point range:

> 176 °F

Auto-ignition temperature: not self-igniting

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 (NOx) 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: Provide adequate ventilation.

Environmental precautions:

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

Methods for clean-up:

Soak up with absorbent materials such as sand, siliceous earth, acid- or universal binder.
Store in special closed containers and dispose of according to ordinance.

7. Handling and storage

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.

Storage

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

Exposure guidelines

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
7085-85-0	Cyanacrylic ester	USA: ACGIH: STEL USA: ACGIH: TWA	1 ppm 0.2 ppm

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.

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
Breakthrough time: >480 min.
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

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

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

Appearance:	Physical state at 68 °F and 101.3 kPa: liquid Form: liquid Color: colorless
Odor:	irritant
Odor threshold:	No data available
pH:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flash point/flash point range:	> 176 °F
Evaporation rate:	No data available

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Flammability:	No data available
Explosion limits:	No data available
Vapor pressure:	at 68 °F: Ethyl 2-cyanoacrylate: 0.12 hPa (DIN 51754)
Vapor density:	No data available
Density:	at 68 °F: 1,06 g/ml
Water solubility:	hydrolysis
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	not self-igniting
Thermal decomposition:	No data available
Viscosity, dynamic:	70-120 mPa.s (Brookfield)
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.
Thermal decomposition:	No data available

11. Toxicological information

Toxicological tests

<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 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>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

Mobility in soil

No data available

Persistence and degradability

Further details: No data available

Additional ecological information

General information: Do not allow to penetrate into soil, waterbodies or drains.

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13. Disposal considerations

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

ADR/RID, IMDG: not applicable
IATA-DGR: UN 3334

UN proper shipping name

ADR/RID, IMDG: Not restricted
IATA-DGR: UN 3334, AVIATION REGULATED LIQUID, N.O.S. (Ethyl 2-cyanoacrylate)

Transport hazard class(es)

ADR/RID, IMDG: not applicable
IATA-DGR: Class 9

Packing group

ADR/RID, IMDG: not applicable
IATA-DGR: III

Environmental hazards

Marine pollutant: no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

USA: Department of Transportation (DOT)

Identification number: UN1993
Proper shipping name: UN 1993, FLAMMABLE LIQUIDS, N.O.S.
(Ethyl 2-cyanoacrylate)
Hazard class or Division: 3
Packing Group: III
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)

UN/ID number: UN 3334
Proper shipping name:: UN 3334, AVIATION REGULATED LIQUID, N.O.S. (Ethyl 2-cyanoacrylate)
Class or division, Subsidiary risk: Class 9
Packing Group: III
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

Cyanacrylic ester: TSCA Inventory: listed

National regulations - U.S. State Regulations

Cyanacrylic ester: California Proposition 65: Not listed.

National regulations - Canada

Cyanacrylic ester: DSL: listed

National regulations - Great Britain

Hazchem-Code: -

16. Other information

Text for labeling: Contains >= 30 % Cyanacrylic ester.
Contains Ethyl 2-cyanoacrylate.

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



SAFETY DATA SHEET

according to 29 CFR 1910.1200 and ANSI standard Z400.1-2010

636K36 - Fast Set Adhesive ergo.Smart.Pen

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Replaces version: 12.1
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Abbreviations and acronyms:

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
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
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
RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
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

Reason of change: General revision

Date of first version: 2/6/2009

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.