

634A67 - Thinner for Neopren Adhesive 636W65

Material number 634A67

Page: 1 of 12

1 Identification

Product identifier

Trade name: 634A67 - Thinner for Neopren Adhesive 636W65

Recommended use and restrictions on use

General use: Thinner and cleaning agent for orthopedic procedures

Initial supplier identifier

Company name: Otto Bock HealthCare Canada Ltd.

Street/POB-No.: 5470 Harvester Road

Postal code, city: Burlington, ON L7L 5N5, CA
Canada

WWW: www.ottobock.ca

Email: info.canada@ottobock.com

Telephone: (800) 665-3327

Telefax: (800) 463-3659

Department responsible for information:

Mark Agro, Telephone: (800) 665-3327 (9 am - 5 pm)

Additional information:

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

Emergency telephone number

COLLECT, Telephone: (613) 996-6666

Transport:

CONSULTANK Lutz Harder GmbH (Contract QUALI003)

Telephone: +49 (0)178-4337434 (from USA: 01149 178 4337434)

2 Hazard identification

Classification

Flammable Liquid 2

Highly flammable liquid and vapour.

Skin Irritation 2

Causes skin irritation.

Eye Irritation 2

Causes serious eye irritation.

Specific Target Organ Toxicity (Single Exposure) 3

May cause drowsiness or dizziness.

Aspiration Toxicity 1

May be fatal if swallowed and enters airways.

Aquatic toxicity - acute 1

Very toxic to aquatic life.

Aquatic toxicity - chronic 1

Very toxic to aquatic life with long lasting effects.

Information elements

Symbols:



Signal word:

Danger

Hazard statements:

Highly flammable liquid and vapour.
May be fatal if swallowed and enters airways.
Causes skin irritation.
Causes serious eye irritation.
May cause drowsiness or dizziness.
Very toxic to aquatic life with long lasting effects.

Precautionary statements:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing mist/vapours/spray.
Wash hands and face thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection.

IF SWALLOWED: Immediately call a POISON CENTER/doctor.
IF ON SKIN: Wash with plenty of water/soap.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/or shower.
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.
Call a POISON CENTER/doctor if you feel unwell.
Specific treatment (see 'First aid' on this label).
Do NOT induce vomiting.
If skin irritation occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
In case of fire: Use water spray, dry powder, foam or carbon dioxide for extinction.
Collect spillage.

Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.

Dispose of contents/container to hazardous or special waste collection point.

Other hazards known to the supplier with respect to the product

Special danger of slipping by leaking/spilling product. Potentially explosive mixtures may form if adequate ventilation is not provided. Inhaling can lead to irritations of the respiratory tract and mucous membrane.

**634A67 - Thinner for Neopren
Adhesive 636W65**

Material number 634A67

Page: 3 of 12

3 Composition/Information on ingredients

Mixture

Chemical name: Mixture of solvents

Hazardous ingredients:

CAS No.	Designation	Content	Classification
CAS 110-82-7	Cyclohexane	50 - 70 %	Flammable Liquid 2. Skin Irritation 2. Specific Target Organ Toxicity (Single Exposure) 3. Aspiration Toxicity 1. Aquatic toxicity - acute 1 (M-factor = 1). Aquatic toxicity - chronic 1 (M-factor = 1).
CAS 141-78-6	Ethyl acetate	20 - 30 %	Flammable Liquid 2. Eye Irritation 2A. Specific Target Organ Toxicity (Single Exposure) 3.
CAS 67-64-1	Acetone	10 - 20 %	Flammable Liquid 2. Eye Irritation 2A. Specific Target Organ Toxicity (Single Exposure) 3.

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

4 First-aid measures

Description of necessary first-aid measures

General information:	If medical advice is needed, have product container or label at hand. Take off immediately all contaminated clothing and wash it before reuse.
In case of inhalation:	Remove person to fresh air and keep comfortable for breathing. In case of irregular breathing or respiratory arrest provide artificial respiration. Seek medical attention if problems persist.
In case of swallowing:	Rinse mouth immediately and drink plenty of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Immediately get medical attention.
In case of skin contact:	Remove residues with soap and water. In case of skin reactions, consult a physician.
In case of 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.

Most important symptoms and effects, whether acute or delayed

May be fatal if swallowed and enters airways.
 Causes skin irritation.
 Causes serious eye irritation.
 May cause drowsiness or dizziness.
 Inhaling can lead to irritations of the respiratory tract and mucous membrane.

Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically. Subsequent observance for pneumonia and lung oedema.

5 Fire-fighting measures

Suitable and unsuitable extinguishing media

Suitable extinguishing media:

Water spray jet, foam, extinguishing powder, carbon dioxide

Unsuitable extinguishing media:

Full water jet

Specific hazards arising from the product

Highly flammable liquid and vapour. vapours may proceed on the ground over great distances and cause fire and backflashes. In case of insufficient ventilation and/or when used, may form explosive/highly flammable vapour-air mixture.

May form dangerous gases and vapours in case of fire. Furthermore, there may develop: Carbon monoxide and carbon dioxide.

Special protective equipment and precautions for fire-fighters

Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.

Additional information:

Do not inhale explosion and combustion gases. Use fine water spray to cool endangered containers.

In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion. Do not allow fire water to penetrate into surface or ground water. Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Do not breathe mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Eliminate all ignition sources if safe to do so.

If possible, eliminate leakage. Provide adequate ventilation. Wear appropriate protective equipment. Take off immediately all contaminated clothing and wash it before reuse.

Keep unprotected people away. Cordon off downwind area at risk and warn inhabitants.

Environmental precautions:

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

In case of release, notify competent authorities. Danger of explosion! Remove from the water surface (e.g. skimming, sucking).

Methods and material for containment and cleaning up

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Beware of reignition. Thoroughly clean surrounding area.

In case of greater quantities: Collect mechanically (use only explosion-proof equipment when pumping out). Never return spills in original containers for re-use.

Additional information:

Special danger of slipping by leaking/spilling product.

634A67 - Thinner for Neopren Adhesive 636W65

Material number 634A67

Page: 5 of 12

7 Handling and storage

Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Do not breathe mist/vapours/spray. Do not get in eyes, on skin, or on clothing.
 Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Wear appropriate protective equipment.
 Take off immediately all contaminated clothing and wash it before reuse. Work place should be equipped with a shower and an eye rinsing apparatus.

Precautions against fire and explosion:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Take precautionary measures against static discharge.
 Use only explosion-protected equipment/instruments. In partially filled containers explosive mixtures may form.

Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep container tightly closed and in a well-ventilated place. Keep container dry. Keep only in original container.
 Protect from heat and direct sunlight. Store containers in upright position.
 Only approved packaging (e.g. in accordance with TDG) may be used.

Hints on joint storage:

Keep away from food, drink and animal feedingstuffs.
 Do not store together with: Oxidizing agents.

8 Exposure controls/Personal protection

Control parameters

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
110-82-7	Cyclohexane	Canada: Alberta, OEL 8 hour	344 mg/m ³ ; 100 ppm
		Canada: BC, OEL TWA	100 ppm
		Canada: Québec, VEMP	1,030 mg/m ³ ; 300 ppm
141-78-6	Ethyl acetate	Canada: Alberta, OEL 8 hour	1,440 mg/m ³ ; 400 ppm
		Canada: BC, OEL TWA	150 ppm
		Canada: Québec, VEMP	1,440 mg/m ³ ; 400 ppm
67-64-1	Acetone	Canada: Alberta, OEL 15 min	1,800 mg/m ³ ; 750 ppm
		Canada: Alberta, OEL 8 hour	1,200 mg/m ³ ; 500 ppm
		Canada: BC, OEL STEL	500 ppm
		Canada: BC, OEL TWA	250 ppm
		Canada: Québec, VECD	500 ppm
		Canada: Québec, VEMP	250 ppm

Biological limit values:

CAS No.	Designation	Type	Limit value	Parameter	Sampling
110-82-7	Cyclohexane	USA: ACGIH-BEI, urine	50 mg/g creatinine	1,2-Cyclohexaned iol	end of shift at end of work week
67-64-1	Acetone	USA: ACGIH-BEI, urine	25 mg/L	acetone	end of exposure or end of shift

Appropriate engineering controls

Provide good ventilation and/or an exhaust system in the work area.

Individual protection measures, such as personal protective equipment

Respiratory protection:	Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded. In case of inadequate ventilation wear respiratory protection. Recommendation: Use filter type A (= against vapours of organic substances) according to OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2. The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.
Hand protection:	Protective gloves according to OSHA Standard - 29 CFR: 1910.138. Recommendation: Multilayer glove During splash contact (< 15 min) Glove material: Butyl caoutchouc (butyl rubber) - Layer thickness: ≥ 0.7 mm Nitrile rubber - Layer thickness: ≥ 0.12 mm Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
Eye protection:	OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2003. Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010.
Body protection:	Flame retardant, antistatic and chemical resistant protective clothing.
General hygiene considerations:	Do not breathe mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Take off immediately all contaminated clothing and wash it before reuse. Work place should be equipped with a shower and an eye rinsing apparatus.

Environmental exposure controls

Refer to 6.: Section "Environmental precautions".

9 Physical and chemical properties

Information on basic physical and chemical properties

Physical state at 20 °C and 101.3 kPa	liquid
Colour:	colourless clear
Odour:	Solvent-like
Odour threshold:	No data available

634A67 - Thinner for Neopren Adhesive 636W65

Material number 634A67

Page: 7 of 12

Melting point and freezing point:	Not determined
Boiling point or initial boiling point and boiling range:	70 °C
Flammability:	Highly flammable liquid and vapour.
Lower and upper explosion limit or lower and upper flammability limit:	LEL (Lower Explosion Limit): 1.20 Vol-% (cyclohexane) UEL (Upper Explosive Limit): 13.00 Vol-% (acetone)
Flash point/flash point range:	-18 °C (c.c.)
Evaporation rate:	No data available
Auto-ignition temperature:	Not self-igniting
Decomposition temperature:	No data available
pH:	No data available
Kinematic viscosity:	at 40 °C: < 1 mm ² /s
Dynamic viscosity:	at 20 °C: approx. 0.89 mPa*s (Cyclohexane)
Water solubility:	Practically insoluble
Partition coefficient — n-octanol/water:	at 25 °C: 3.44 log K(o/w) (Cyclohexane) Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected.
Vapour pressure:	at 20 °C: 247 hPa
Density and/or relative density	at 20 °C: 0.79 g/mL
Vapour density:	No data available
Particle characteristics:	Not applicable

Additional information

Explosive properties:	vapours may form explosive mixtures with air.
Oxidizing characteristics:	Not oxidising
Ignition temperature:	260 °C (cyclohexane)

10 Stability and reactivity

Reactivity:	Highly flammable liquid and vapour.
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	vapours may form explosive mixtures with air. Heating will lead to pressure increase: danger of bursting and explosion.
Conditions to avoid:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Protect from direct sunlight.
Incompatible materials:	Oxidizing agents
Hazardous decomposition products:	No hazardous decomposition products when regulations for storage and handling are observed.

11 Toxicological information

Information on the likely routes of exposure

No data available

Health hazard information

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

ATEmix (calculated): > 5,000 mg/kg

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

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

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

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

Sensitisation to the respiratory tract: Based on available data, the classification criteria are not met.

Skin sensitisation: Based on available data, the classification criteria are not met.

Germ cell mutagenicity/Genotoxicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Specific Target Organ Toxicity (Single Exposure) 3 = May cause drowsiness or dizziness.

Specific target organ toxicity (repeated exposure): Based on available data, the classification criteria are not met.

Aspiration hazard: Aspiration Toxicity 1 = May be fatal if swallowed and enters airways.

Other information:

Information about Cyclohexane (CAS 110-82-7):

LD50 Rat, oral: > 5,000 mg/kg (OECD 401)

LD50 Rabbit, dermal: > 2,000 mg/kg (OECD 402), no mortality occurred

LC50 Rat, inhalative (vapour) : > 32.8 mg/L/4h (OECD 403), no mortality occurred

Information about Ethyl acetate (CAS 141-78-6):

LD50 Rabbit, oral: 4,934 mg/kg (OECD 401)

LD50 Rabbit, dermal: > 20,000 mg/kg

LC50 Rat, inhalative (vapour) : > 22.5 mg/L/6h, no mortality occurred

Symptoms

In case of inhalation: Higher doses may lead to a narcotic effect.

In case of ingestion:

Aspiration hazard: in case of swallowing or vomiting danger of penetration into the lungs.

After contact with skin: The product is skin resorptive.

After eye contact: Upon direct contact with eyes may cause burning, tearing, redness.

12 Ecological information

Ecotoxicity

Aquatic toxicity: Very toxic to aquatic life with long lasting effects.

Information about Cyclohexane (CAS 110-82-7):

Fish toxicity:

LC50 Pimephales promelas (fathead minnow): 4.53 mg/L/96h (OECD 203)

NOEC Oncorhynchus mykiss: 0.447 mg/L/21d (QSAR)

Daphnia toxicity:

EC50 Daphnia magna (Big water flea): 0.9 mg/L/48h (OECD 202)

NOEC Daphnia magna (Big water flea): 0.835 mg/L/21d (QSAR)

Algae toxicity:

ErC50 Pseudokirchneriella subcapitata (green algae): > 4.425 mg/L/72h (OECD 201)

NOEC Pseudokirchneriella subcapitata (green algae): 0.925 mg/L/72h (OECD 201)

Effects in sewage plants: Information about Cyclohexane (CAS 110-82-7):

IC50 activated sludge: 29 mg/L/15h

EL10 activated sludge: 6.821 mg/L/72h (QSAR)

Persistence and degradability

Further details: Biodegradability: Product is readily biodegradable.

Information about Cyclohexane (CAS 110-82-7):

Oxygen consumption: 77%/28d (OECD 301 F)

Bioaccumulative potential

Information about Cyclohexane (CAS 110-82-7):

Bioconcentration factor (BCF): ≤ 167

Partition coefficient — n-octanol/water:

at 25 °C: 3.44 log K(o/w) (Cyclohexane)

Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected.

Mobility in soil

Information about Cyclohexane (CAS 110-82-7):

Adsorption coefficient: log KOC: 2.89

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: Dispose of waste according to applicable legislation. Do not allow to enter drains.

Package

Recommendation: Dispose of waste according to applicable legislation. Handle empty containers with care. Incineration may cause explosion. Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

14 Transport information

UN number

TDG: UN1993
IMDG, IATA-DGR: UN 1993

UN proper shipping name

TDG: UN 1993, Flammable liquid, n.o.s. (Cyclohexane, Ethyl acetate)
IMDG, IATA-DGR: UN 1993, FLAMMABLE LIQUID, N.O.S. (Cyclohexane, Ethyl acetate)

Transport hazard class

TDG: 3
IMDG: Class 3, Subrisk -
IATA-DGR: Class 3

Packing group

TDG, IMDG, IATA-DGR: II

Environmental hazards

Marine pollutant: yes



Special precautions in connection with transport or conveyance either within or outside the premises

Canada: Transportation of Dangerous Goods (TDG)

Special Provisions: 16, 150
Explosive limit and limited quantity index: 1 L
Passenger carrying road or rail index: 5 L
Marine pollutant: P

634A67 - Thinner for Neopren Adhesive 636W65

Material number 634A67

Page: 11 of 12

Sea transport (IMDG)

EmS: F-E, S-E
Special Provisions: 274
Limited quantities: 1 L
Excepted quantities: E2
Package - Instructions: P001
Package - Provisions: -
IBC - Instructions: IBC02
IBC - Provisions: -
Tank instructions - IMO: -
Tank instructions - UN: T7
Tank instructions - Provisions: TP1, TP8, TP28
Stowage and handling: Category B.
Properties and observations: -
Marine pollutant: yes
Segregation group: none

Air transport (IATA)

Proper shipping name: UN 1993, FLAMMABLE LIQUID, N.O.S. (Cyclohexane, Ethyl acetate)
Hazard label: Flamm. liquid
Excepted Quantity Code: E2
Passenger and Cargo Aircraft: Ltd.Qty.: Pack.Instr. Y341 - Max. Net Qty/Pkg. 1 L
Passenger and Cargo Aircraft: Pack.Instr. 353 - Max. Net Qty/Pkg. 5 L
Cargo Aircraft only: Pack.Instr. 364 - Max. Net Qty/Pkg. 60 L
Special Provisions: A3
Emergency Response Guide-Code (ERG): 3H

15 Regulatory information

National regulations - Canada

Cyclohexane: DSL: listed
Ethyl acetate: DSL: listed
Acetone: DSL: listed

Further regulations, limitations and legal requirements

No data available

16 Other information

Text for labelling: Contains:
Cyclohexane
Ethyl acetate
Acetone

Revision date: 16/4/2026
Date of first version: 12/6/1999
Reason of change: Changes in section 2: Labelling
Changes in section 3: Composition/information on ingredients
Changes in section 9: Physical and chemical properties
General revision: Safety Data Sheet according to Hazardous Products Regulations (HPR) 2022
Classification procedure: Physical hazards: on basis of test data
Health hazards, environmental hazards: calculation method

Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
Aquatic toxicity - acute: Hazardous to the aquatic environment - acute
Aquatic toxicity - chronic: Hazardous to the aquatic environment - chronic
AS/NZS: Australian Standards/New Zealand Standards
Aspiration Toxicity: Aspiration toxicity
ATEmix: Acute Toxicity Estimate of mixture
BCF: Bioconcentration Factor
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)
DSL: Domestic Substances List
EC: European Community
EC50: Effective Concentration 50%
EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods
EN: European Standard
EQ: Excepted quantities
Eye Irritation: Eye irritation
Flammable Liquid: Flammable liquid
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
IC50: Inhibition Concentration 50%
IMDG Code: International Maritime Dangerous Goods Code
IMO: International Maritime Organization
LC50: Median lethal concentration
LD50: Lethal dose 50%
LEL: Lower Explosion Limit
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
M-factor: Multiplication factor
NOEC: No Observed Effect Concentration
OECD: Organisation for Economic Co-operation and Development
OEL: Occupational Exposure Limit Value
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
TDG: Transportation of Dangerous Goods Regulation in Canada
TLV: Threshold Limit Value
TRGS: Technical Rules for Hazardous Substances
UN: United Nations
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.