

## 1 Identification

### Product identifier

Trade name: 634A23 - Thinner for 636W25

### Recommended use and restrictions on use

General use: Dilution for PU-Adhesive.  
For orthopedic procedures. For commercial user only.

### 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](http://www.ottobock.ca)

Email: [info.canada@ottobock.com](mailto: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.

Eye Irritation 2A

Causes serious eye irritation.

Specific Target Organ Toxicity (Single Exposure) 3 May cause drowsiness or dizziness.

### Information elements

Symbols:



Signal word:

**Danger**

Hazard statements:

Highly flammable liquid and vapour.  
Causes serious eye irritation.  
May cause drowsiness or dizziness.

### Precautionary statements:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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.

Wear protective gloves and eye protection.

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.

If eye irritation persists: Get medical advice/attention.

In case of fire: Use ... to extinguish.

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

Potentially explosive mixtures may form if adequate ventilation is not provided.

Inhaling can lead to irritations of the respiratory tract and mucous membrane.

Danger of cutaneous absorption.

Higher doses may lead to a narcotic effect.

Special danger of slipping by leaking/spilling product.

## 3 Composition/Information on ingredients

### Mixture

Chemical name: Mixture of the substances listed below with non-hazardous additions.

Hazardous ingredients:

CAS No.	Designation	Content	Classification
CAS 78-93-3	Butanone	50 - 100 %	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 contaminated clothing and wash it before reuse.

In case of inhalation:	Provide fresh air. Seek medical treatment in case of troubles. If breathing becomes irregular or ceases, apply rescue breathing or artificial respiration immediately, where required supply oxygen.
In case of swallowing:	Rinse mouth with water. Never give anything by mouth to an unconscious person. Immediately get medical attention. Do not induce vomiting.
In case of skin contact:	After contact with skin, wash immediately with soap and plenty of 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 cause drowsiness or dizziness.  
Repeated exposure may cause skin dryness or cracking.  
Causes serious eye irritation.  
After ingestion: May cause stomachache or vomiting.  
In case of inhalation: Headache, nausea and inebriation. May cause irritations.

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

Treat symptomatically.

## 5 Fire-fighting measures

### Suitable and unsuitable extinguishing media

Suitable extinguishing media:

Carbon dioxide, extinguishing powder, alcohol resistant foam, water spray jet.

Unsuitable extinguishing media:

Full water jet

### Specific hazards arising from the product

Highly flammable liquid and vapour.  
vapours form potentially explosive mixtures with air, which are heavier than air. Air-vapour mixture may travel great distances at floor level and lead to backflash when exposed to an ignition source.  
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.  
Move container away or cool with water from a protected position.  
Do not allow water used to extinguish fire to enter drains, ground or waterways.  
You have to dispose of contaminated extinguishing water according to the regulations of the authorities.

## 6 Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Provide adequate ventilation.  
Eliminate all ignition sources if safe to do so. If possible, eliminate leakage.  
Wear appropriate protective equipment. Keep unprotected people away.  
Do not breathe vapours. Avoid contact with skin and eyes.  
Take off contaminated clothing and wash it before reuse.

#### Environmental precautions:

Do not allow to penetrate into soil, waterbodies or drains.  
Danger of explosion !

### Methods and material for containment and cleaning up

Plug leak if safely possible.  
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.  
Do not remove residual product with water and detergent.

#### Additional information:

Use explosion-proof equipment and non-sparking tools/utensils.  
Special danger of slipping by leaking/spilling product.

## 7 Handling and storage

### Precautions for safe handling

#### Advices on safe handling:

Provide adequate ventilation, and local exhaust as needed.  
Avoid the formation of aerosol. Do not breathe vapours. Avoid contact with skin and eyes.  
Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse. Do not eat, drink or smoke when using this product.  
Have eye wash bottle or eye rinse ready at work place. When handling large quantities, supply emergency spray.

#### Precautions against fire and explosion:

Keep away from sources of ignition - No smoking.  
Take precautionary measures against static discharges.  
Use only explosion-proof equipment.

### Conditions for safe storage, including any incompatibilities

#### Requirements for storerooms and containers:

Keep container tightly closed in a cool, well-ventilated place. Keep container dry.  
Provide solvent resistant flooring.  
Protect against heat /sun rays.

#### Hints on joint storage:

Do not store together with combustible or self-igniting materials or any highly flammable solids.

Do not store together with alcohols, amines, Acids, alkalis.  
Keep away from food, drink and animal feedingstuffs.

#### Further details:

Release of highly flammable gases/vapours.  
Heating causes rise in pressure with risk of bursting.

## 8 Exposure controls/Personal protection

### Control parameters

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
78-93-3	Butanone	Canada: Alberta, OEL 15 min	885 mg/m <sup>3</sup> ; 300 ppm
		Canada: Alberta, OEL 8 hour	590 mg/m <sup>3</sup> ; 200 ppm
		Canada: BC, OEL STEL	100 ppm (may be absorbed through the skin)
		Canada: BC, OEL TWA	50 ppm (may be absorbed through the skin)
		Canada: Québec, VECD	300 mg/m <sup>3</sup> ; 100 ppm
		Canada: Québec, VEMP	150 mg/m <sup>3</sup> ; 50 ppm

Biological limit values:

CAS No.	Designation	Type	Limit value	Parameter	Sampling
78-93-3	Butanone	USA: ACGIH-BEI, urine	2 mg/L	MEK	end of exposure or end of shift

### Appropriate engineering controls

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

Use only explosion-proof equipment.

### Individual protection measures, such as personal protective equipment

**Respiratory protection:** Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded. Wear half-mask respirator with combination filter for organic vapours and particles.

**Hand protection:** Protective gloves according to OSHA Standard - 29 CFR: 1910.138.  
Glove material: Butyl caoutchouc (butyl rubber)-Layer thickness: 0.7 mm.  
Breakthrough time: >240 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:** Flame retardant, antistatic and chemical resistant protective clothing.

**General hygiene considerations:**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid the formation of aerosol. Do not breathe vapours. Avoid contact with skin and eyes.

Wash hands before breaks and after work. Take off contaminated clothing and wash it before reuse. Do not eat, drink or smoke when using this product.

Have eye wash bottle or eye rinse ready at work place. When handling large quantities, supply emergency 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 20 °C and 101.3 kPa	liquid
Colour:	colourless
Odour:	characteristic
Odour threshold:	No data available
Melting point and freezing point:	No data available
Boiling point or initial boiling point and boiling range:	79 °C (DIN 53171)
Flammability:	Highly flammable liquid and vapour.
Lower and upper explosion limit or lower and upper flammability limit:	LEL (Lower Explosion Limit): (EN 1839) 1.80 Vol-% UEL (Upper Explosive Limit): (EN 1839) 11.50 Vol-%
Flash point/flash point range:	-4 °C (DIN 53213)
Evaporation rate:	No data available
Auto-ignition temperature:	not self-igniting
Decomposition temperature:	No data available
pH:	No data available
Solubility:	in organic solvents
Water solubility:	slightly miscible
Partition coefficient — n-octanol/water:	No data available
Vapour pressure:	at 20 °C: 105 hPa (DIN 51640)
Density and/or relative density	at 20 °C: 0.8 g/mL (DIN 51757)
Vapour density:	No data available
Particle characteristics:	Not applicable

### Additional information

Explosive properties:	Product is not explosive. Potentially explosive mixtures may form if adequate ventilation is not provided.
Solvent content:	100 %

## 10 Stability and reactivity

Reactivity:	Highly flammable liquid and vapour. vapours may form explosive mixtures with air.
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	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 against heat /sun rays.
Incompatible materials:	Reacts with alcohols, amines, Acids, alkalis.
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.

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: Lack of data.

Serious eye damage/irritation: Eye Irritation 2A = 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: Based on available data, the classification criteria are not met.

Other information:

Information about 2-Butanone:

LD50 Rat, oral: > 2,600 mg/kg

LD50 Rabbit, dermal: > 8,000 mg/kg

LC50 Rat, inhalative: 40 mg/L/2h

### Symptoms

In case of inhalation: Headache, nausea and inebriation.

May cause irritations.

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

## 12 Ecological information

### Ecotoxicity

Aquatic toxicity:

Information about 2-Butanone:

Fish toxicity:

LC50 Pimephales promelas (fathead minnow): 3,220 mg/L/96h

Daphnia toxicity:

EC50 Daphnia magna (Big water flea): 5,091 mg/L/48h

### 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: Do not dispose of with household waste.  
Incinerate as hazardous waste according to applicable local, state, and federal regulations.

### Package

Recommendation: Dispose of waste according to applicable legislation.  
Handle contaminated packages in the same way as the substance itself.

# 14 Transport information

## UN number

TDG: UN1193  
IMDG, IATA-DGR: UN 1193

## UN proper shipping name

TDG: UN 1193, Ethyl methyl ketone; or Methyl ethyl ketone  
IMDG: UN 1193, ETHYL METHYL KETONE (METHYL ETHYL KETONE)  
IATA-DGR: UN 1193, ETHYL METHYL KETONE or METHYL ETHYLKETONE

## Transport hazard class

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

## Packing group

TDG, IMDG, IATA-DGR: II

## Environmental hazards

Marine pollutant: no



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

#### Canada: Transportation of Dangerous Goods (TDG)

Explosive limit and limited quantity index: 1L  
Passenger carrying road or rail index: 5L

#### Sea transport (IMDG)

EmS: F-E, S-D  
Special Provisions: -  
Limited quantities: 1 L  
Excepted quantities: E2  
Package - Instructions: P001  
Package - Provisions: -  
IBC - Instructions: IBC02  
IBC - Provisions: -  
Tank instructions - IMO: -  
Tank instructions - UN: T4  
Tank instructions - Provisions: TP1  
Stowage and handling: Category B.  
Properties and observations: Colourless liquid. Flashpoint: -1°C c.c. Explosive limits: 1,8% to 11,5%. Miscible with water.  
Marine pollutant: no  
Segregation group: none

#### Air transport (IATA)

Proper shipping name: UN 1193, ETHYL METHYL KETONE or METHYL ETHYLKETONE  
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  
Emergency Response Guide-Code (ERG): 3L

## 15 Regulatory information

### National regulations - Canada

Butanone: DSL: listed

### Further regulations, limitations and legal requirements

No data available

## 16 Other information

Text for labelling: Contains 2-Butanone.  
Revision date: 17/12/2025  
Date of first version: 12/9/1989  
Reason of change: General revision: Safety Data Sheet according to Hazardous Products Regulations (HPR) 2022

### 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  
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  
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  
OEL: Occupational Exposure Limit Value  
OSHA: Occupational Safety and Health Administration  
PBT: Persistent, bioaccumulative and toxic  
PNEC: Predicted no-effect concentration  
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.