

1 Identification

Product identifier

Trade name: 634A1 - Thinner and solvent

Recommended use and restrictions on use

General use: Thinner and Solvent, for orthopedic procedures.
Reserved for industrial and professional use.

Initial supplier identifier

Company name: Otto Bock HealthCare Canada Ltd.

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Canada

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Department responsible for information:

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Additional information:

Corporate headquarters:
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Germany

Emergency telephone number

COLLECT, Telephone: (613) 996-6666

Transport:

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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.

Avoid breathing vapours.

Wear protective gloves and eye protection.

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.

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

Other hazards known to the supplier with respect to the product

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.

Inhaling can lead to irritations of the respiratory tract and mucous membrane. Higher doses may lead to a narcotic effect.

Special danger of slipping by leaking/spilling product.

3 Composition/Information on ingredients

Material/substance

Chemical name: C3 H6 O2 = CH3-COOCH3

Methyl acetate

CAS-Number: 79-20-9

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: Move victim to fresh air; if necessary, provide artificial respiration or oxygen. Seek medical attention. Do not allow victim to become chilled. Keep victim warm.

Position and transport victim on their side. In case of respiratory distress, bring into semi-upright, seated position.

In case of swallowing: Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Do not induce vomiting. Seek medical attention.

In case of skin contact: Immediately clean with water and soap followed by thorough rinsing. 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. Causes serious eye irritation. Repeated exposure may cause skin dryness or cracking.

The following symptoms may occur: Eye, nose, throat irritation, headache, at higher concentrations dizziness and nausea, unconsciousness and apnea.

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

Take measures to prevent pneumonia, infections and other symptoms, in particular acidity-alkalinity.

5 Fire-fighting measures

Suitable and unsuitable extinguishing media

Suitable extinguishing media:

Water spray jet, alcohol resistant foam, carbon dioxide

Unsuitable extinguishing media:

Full water jet

Specific hazards arising from the product

Highly flammable liquid and vapour. Liquid evaporates very quickly. Product is not explosive. vapour and air form potentially explosive mixture that is hazardous to health. Mixture is heavier than air and will travel great distances at floor level and lead to backflash when exposed to an ignition source.

Heating will lead to pressure increase: danger of bursting and explosion.

In case of fire may be liberated: Acetic acid, 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:

Cool endangered containers with water spray and, if possible, remove from danger zone. Do not allow fire water to penetrate into surface or ground water.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Eliminate all ignition sources if safe to do so. Avoid contact with the substance. Provide adequate ventilation.

Avoid breathing vapours. Keep unprotected people away. Wear appropriate protective equipment. 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.

Methods and material for containment and cleaning up

Take up with non-flammable, liquid binding material (e.g. sand/earth/diatomaceous earth/vermiculit) and perform disposal according to instructions.

In case of greater quantities: Collect mechanically (use only explosion-proof equipment when pumping out). Close all lower level rooms.

Final cleaning.

Additional information:

Use only non-sparking tools. Take precautionary measures against static discharges.

Special danger of slipping by leaking/spilling product.

7 Handling and storage

Precautions for safe handling

Advices on safe handling: Provide good ventilation and/or an exhaust system in the work area.
Avoid breathing vapours. Avoid contact with skin and eyes.
Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse.
Do not allow containers to stand open. Store product in a quantity adequate for 1 work-shift only.
Have eye wash bottle or eye rinse ready at work place.

Precautions against fire and explosion:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Take precautionary measures against static discharges.
Use explosion-proof equipment and non-sparking tools/utensils.
Ground all containers and instruments. Use only explosion-protected equipment/instruments. Do not use air pressure to deliver.
Highly flammable liquid and vapour. Liquid evaporates very quickly. vapour and air form potentially explosive mixture that is hazardous to health. Mixture is heavier than air and will travel great distances at floor level and lead to backflash when exposed to an ignition source.
Ignition by hot surfaces, sparks and open flames.

Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep container tightly closed in a cool, well-ventilated place.
Protect from heat and direct sunlight.
Keep container dry.

Hints on joint storage:

Do not store together with combustible materials or highly flammable solids.
keep away from: oxidizing agents
Keep away from food, drink and animal feedingstuffs.

Further details:

Breakable containers may not exceed 2,2 liters. Maximum fill: 95 %
Unsuitable materials: various plastics, rubber.

8 Exposure controls/Personal protection

Control parameters

Occupational exposure limit values:

Type	Limit value
Canada: Alberta, OEL 15 min	757 mg/m ³ ; 250 ppm
Canada: Alberta, OEL 8 hour	606 mg/m ³ ; 200 ppm
Canada: BC, OEL STEL	250 ppm
Canada: BC, OEL TWA	200 ppm
Canada: Québec, VECD	757 mg/m ³ ; 250 ppm
Canada: Québec, VEMP	606 mg/m ³ ; 200 ppm

Appropriate engineering controls

Use only explosion-protected equipment/instruments.
Provide adequate ventilation, and local exhaust as needed.
Vent high concentrations of aerosols and/or fumes from the work area. Process exhaust through separator/filter as needed.

Individual protection measures, such as personal protective equipment

Respiratory protection: Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded. Use filter type AX (= against vapours of low boiling organic substances) according to OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2.
In case of prolonged or repeated exposures: use self-contained breathing apparatus.

Hand protection: Protective gloves according to OSHA Standard - 29 CFR: 1910.138.
Glove material: butyl caoutchouc (butyl rubber) - Layer thickness: 0.5 mm
Breakthrough time: < 30 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: Wear suitable protective clothing.
In case of handling larger quantities: Flame-resistant antistatic protective clothing

General hygiene considerations:
Avoid breathing vapours. Avoid contact with skin and eyes.
Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse.
Do not allow containers to stand open. Store product in a quantity adequate for 1 work-shift only.
Have eye wash bottle or eye rinse ready at work place. Wash hands before breaks and after work.

Environmental exposure controls

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

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: mild, pleasant ester odour

Odour threshold: No data available

Melting point and freezing point: -98 °C

Boiling point or initial boiling point and boiling range: 55 - 57 °C

Flammability: No data available

Lower and upper explosion limit or lower and upper flammability limit:
LEL (Lower Explosion Limit): 3.10 Vol-% (literature value)
UEL (Upper Explosive Limit): 16.00 Vol-% (literature value)

Flash point/flash point range: -14 °C (ISO 13736)

Evaporation rate: No data available

Auto-ignition temperature: No data available

Decomposition temperature: No data available

pH:	at 20 °C, 295 g/L: 3.9
Dynamic viscosity:	at 20 °C: 0.381 mPa*s
Solubility:	at 20 °C: various organic solvents
Water solubility:	at 20 °C: 239 g/L
Partition coefficient — n-octanol/water:	0.18 log P(o/w) (OECD 121) Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.
Vapour pressure:	at 20 °C: 220 hPa at 50 °C: 782 hPa
Density and/or relative density	at 20 °C: 0.933 g/mL
Vapour density:	No data available
Particle characteristics:	Not applicable

Additional information

Explosive properties:	Product is not explosive. vapours may form explosive mixtures with air.
Ignition temperature:	505 °C (DIN 51794)
Molecular weight	74.08 g/mol

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:	Liquid evaporates very quickly. Product is not explosive. vapours may form explosive mixtures with air. vapour and air form potentially explosive mixture that is hazardous to health. Mixture is heavier than air and will travel great distances at floor level and lead to backflash when exposed to an ignition source. Ignition by hot surfaces, sparks and open flames. Heating will lead to pressure increase: danger of bursting and explosion.
Conditions to avoid:	Take precautionary measures against static discharges. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Protect from moisture contamination.
Incompatible materials:	Contact with water causes product to separate into acetic acid and methyl alcohol. Decomposition happens much faster in presence of acids and lyes. Exothermic reactions with strong oxidizing agents.
Hazardous decomposition products:	Acetic acid, methanol

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

Specific symptoms in animal studies (Rabbit): Not an irritant (OECD 404)

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

Specific symptoms in animal studies (Rabbit): irritant (OECD 405)

Sensitisation to the respiratory tract: Lack of data.

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.

Ames test (in-vitro): negative (OECD 471)

Micronucleus test (in-vivo): negative (OECD 474)

Carcinogenicity: Lack of data.

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.

NOAEC Rat, inhalative (aerosol): 1.057 mg/L/28d (OECD 407)

Aspiration hazard: Lack of data.

Acute toxicity: LD50 Rat, oral: > 6,482 mg/kg

LD50 Rat, dermal: > 2,000 mg/kg (OECD 402)

LC50 Rat, inhalative (vapour): > 49.2 mg/L/4h

Other information: Methyl acetate is rapidly hydrolyzed into methanol and acetic acid which, especially over time, may result in a methanol poisoning.

Symptoms

In case of inhalation:

Eye, nose, throat irritation, headache, at higher concentrations dizziness and nausea, unconsciousness and apnea.

Methyl acetate has a narcotic and depressive effect on the central nervous system especially in vapour form. Possible subsequent damage to the optical nerve.

In severe cases, pneumonia or a pulmonary edema may develop.

May cause irritations.

A concentration that is hazardous to health occurs rapidly. Long exposure to vapour-enriched air may cause serious damage with lasting side effects.

After contact with skin: May cause irritations. Expect absorption through the skin.

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

12 Ecological information

Ecotoxicity

Aquatic toxicity: When mixed with water, forms byproducts that are hazardous to health. Especially in closed containers potentially explosive mixtures may form above water surface.
Attention in stagnant and very slow flowing waters!

Fish toxicity:
LC50 Danio rerio (zebrafish): 250 - 350 mg/L/96h (OECD 203)

Daphnia toxicity:
EC50 Daphnia magna (Big water flea): 1026.7 mg/L/48h (OECD 202)

Algae toxicity:
EC50 Desmodesmus subspicatus (green algae), growth rate: > 120 mg/L/72h (OECD 201)

Bacterial toxicity:
EC50 Pseudomonas putida: 6,000 mg/L/16h

Persistence and degradability

Further details: Biodegradability: 70 %/28 d (OECD 301 D)

Bioaccumulative potential

Partition coefficient — n-octanol/water:
0.18 log P(o/w) (OECD 121)
Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.

Mobility in soil

No data available

Other adverse effects

Oxygen demand: CSB: 1,51 g/g
ThSB: 1,512 g/g

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

13 Disposal considerations

Waste treatment methods

Product

Recommendation: Incinerate as hazardous waste according to applicable local, state, and federal regulations.
Do not empty into drains.

Package

Recommendation: Dispose of waste according to applicable legislation.

14 Transport information

UN number

TDG: UN1231
IMDG, IATA-DGR: UN 1231

UN proper shipping name

TDG, IMDG, IATA-DGR: UN 1231, METHYL 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: 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, volatile liquid with a fragrant odour. Flashpoint: -10°C c.c.

Explosive limits: 3% to 16%. Miscible with water.

Marine pollutant: no

Segregation group: none

Air transport (IATA)

Proper shipping name: UN 1231, METHYL 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

Emergency Response Guide-Code (ERG): 3H

15 Regulatory information

National regulations - Canada

DSL: listed

Further regulations, limitations and legal requirements

No data available

16 Other information

Text for labelling: Contains Methyl acetate
Revision date: 17/12/2025
Date of first version: 9/9/1994
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)

Abbreviations and acronyms:

AS/NZS: Australian Standards/New Zealand Standards
CAS: Chemical Abstracts Service
CFR: Code of Federal Regulations
CLP: Classification, Labelling and Packaging
CNS: Central Nervous System
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
log P(o/w): Partition coefficient: octanol/water
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
NOAEC: No observed adverse 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
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
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

Literature: European Commission: Methyl Acetate, Risk Assessment Report, 2003

Department issuing data sheet

Contact person: see section 1: Department responsible for information



SAFETY DATA SHEET

according to Hazardous Products Regulations (HPR) 2022

634A1 - Thinner and solvent

Material number 634A 1

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