

1. Product and company identification

Product identifier

Trade name: 635C2B - Thinner for 635C2A

Recommended use and restrictions on use

General use: Thinner for 635C2A.
For orthopedic procedures. For commercial user only
Mixing ratio:
2 Components
1 Part Thinner for 635C2A

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

E-mail: 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 phone number

COLLECT, Telephone: (613) 996-6666

Transport:

CONSULTANK Lutz Harder GmbH (Contract QUALI003)

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

2. Hazards identification

Emergency overview

Appearance: Form: liquid
Color: colorless

Odor: sweetish

Classification: Flammable Liquid 3. Specific Target Organ Toxicity (Single Exposure) 3.

Hazard symbols:



Signal word:

Warning

Hazard statements: Flammable liquid and vapor.
May be harmful if swallowed.
May cause drowsiness or dizziness.

Precautionary statements: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Take precautionary measures against static discharge.
Avoid breathing vapors.
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.
Call a POISON CENTER/doctor if you feel unwell.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.

Regulatory status

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

Hazards not otherwise classified

Narcotic effect in case of higher doses or prolonged exposure.
Special danger of slipping by leaking/spilling product.
see section 11: Toxicological information

3. Composition / Information on ingredients

Chemical characterisation: C4 H10 O2 = CH3-CHOH-CH2-O-CH3
PGME, 1-Methoxypropan-2-ol
1-Methoxy-2-propanol

CAS-Number: 107-98-2

RTECS-Number: UB7700000

4. First aid measures

In case of inhalation: Provide fresh air.
Move victim to fresh air, provide oxygen as needed. Seek medical attention.

Following skin contact: After contact with skin, wash immediately with plenty of water.
Take off immediately all contaminated clothing. Seek medical aid in case of troubles.

After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart.
Seek medical attention.

After swallowing: If swallowed, seek medical advice immediately and show this container or label.
Do not induce vomiting without medical assistance.
If victim is at risk of losing consciousness, position and transport on their side.
Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

May cause drowsiness or dizziness.

Information to physician

Treat symptomatically.

On irritation of the respiratory system use an aerosol dispenser and treat with 5 doses of dexamethasone aerosol (e.g. Auxiloson, Thomae) every 10 minutes until symptoms cease.

Cave: Causes depression of CNS.

5. Fire fighting measures

Flash point/flash point range:

31 - 32 °C

Auto-ignition temperature: No data available

Suitable extinguishing media:

Water spray jet, alcohol resistant foam, extinguishing powder, carbon dioxide.

Extinguishing media which must not be used for safety reasons:

strong water jet

Specific hazards arising from the chemical

Flammable liquid and vapor. Concentrated vapors are heavier than air.

In case of warming: On contact with air, potentially explosive mixtures may develop.

In case of fire may be liberated: Carbon monoxide and carbon dioxide

Special protective equipment and precautions for fire-fighters:

Wear self-contained breathing apparatus. Wear appropriate protective equipment.

Additional information:

Use water spray jet to protect personnel and to cool endangered containers.

Do not allow fire water to penetrate into surface or ground water.

6. Accidental release measures

Personal precautions:

Eliminate all ignition sources if safe to do so.

Avoid contact with skin, eyes, and clothing.

Do not breathe vapors. Wear appropriate protective equipment.

Provide for sufficient ventilation, particularly in closed rooms.

Environmental precautions:

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

Methods for clean-up:

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents) and place in closed containers for disposal.

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

Handling

Advices on safe handling:

Provide adequate ventilation, and local exhaust as needed.

Avoid contact with skin, eyes, and clothing. Do not breathe vapor.

Wear appropriate protective equipment. When using do not eat, drink or smoke.

Precautions against fire and explosion:

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Use only non-sparking tools.

Storage

Requirements for storerooms and containers:

Keep containers tightly closed and at a temperature between 15 °C and 25 °C.

Keep away from sources of ignition and heat. Protect from light.

Suitable material: Stainless steel, steel

Unsuitable materials: Aluminium, light metals, copper.

Hints on joint storage:

Avoid contact with strong acids, strong bases and strong oxidizing agents.

Keep away from combustible materials.

Keep away from food, drink and animal feedingstuffs.

8. Exposure controls / personal protection

Exposure guidelines

Occupational exposure limit values:

Type	Limit value
Canada: OEL 15 min	553 mg/m ³ ; 150 ppm
Canada: OEL 8 hour	369 mg/m ³ ; 100 ppm
Canada: OEL STEL	100 ppm
Canada: OEL TWA	50 ppm
Canada: VECD	100 mg/m ³
Canada: VEMP	50 mg/m ³
USA: ACGIH: STEL	369 mg/m ³ ; 100 ppm
USA: ACGIH: TWA	184 mg/m ³ ; 50 ppm
USA: NIOSH: STEL	540 mg/m ³ ; 150 ppm
USA: NIOSH: TWA	360 mg/m ³ ; 100 ppm

Additional information: The product can be absorbed through skin.

Engineering controls

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

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: Wear suitable protective clothing.

Protective gloves according to OSHA Standard - 29 CFR: 1910.138.

Glove material: Butyl caoutchouc (butyl rubber)-Layer thickness 0.5 mm.

Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Unsuitable materials: natural rubber, nitrile rubber, PVC.

Respiratory protection: Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded.

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

General hygiene considerations:

Avoid contact with skin, eyes, and clothing. Take off immediately all contaminated clothing.
Do not breathe vapors. Wear appropriate protective equipment.
When using do not eat, drink or smoke.
Wash hands before breaks and after work.

Environmental exposure controls

Refer to 6.: Section "Environmental precautions".

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance:	Form: liquid Color: colorless
Odor:	sweetish
Odor threshold:	No data available
pH:	at 20 °C, 200 g/L: 4 - 7
Melting point/freezing point:	-96 °C
Initial boiling point and boiling range:	120 °C (OECD 103)
Flash point/flash point range:	31 - 32 °C
Evaporation rate:	No data available
Flammability:	Flammable liquid and vapor.
Explosion limits:	LEL (Lower Explosion Limit): 1.70 Vol-% UEL (Upper Explosive Limit): 13.10 Vol-%
Vapor pressure:	at 20 °C: 12 hPa
Vapor density:	No data available
Density:	at 20 °C: 0.921 g/mL at 25 °C: 0.916 g/mL
Water solubility:	at 20 °C: complete miscible
Partition coefficient: n-octanol/water:	-0.437 log P(o/w) Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.
Auto-ignition temperature:	No data available
Thermal decomposition:	No data available
Viscosity, dynamic:	at 20 °C: 1.7 mPa*s
Explosive properties:	On contact with air, potentially explosive mixtures may develop.
Ignition temperature:	287 °C (EU A.15)
Refraction index:	at 20 °C: 1.404
Additional information:	Molar mass: 90.12 g/mol Relative vapor density at 20 °C (air=1): 3.11 Solvent contents: 100%

10. Stability and reactivity

Reactivity: Flammable liquid and vapor.

Chemical stability:	Hygroscopic. Stable under recommended storage conditions.
Possibility of hazardous reactions:	On contact with air, potentially explosive mixtures may develop.
Conditions to avoid:	heating. Keep away from sources of ignition. Take precautionary measures against static discharges.
Incompatible materials:	Strong acids, strong bases, strong oxidizing agents
Hazardous decomposition products:	In case of fire may be liberated: Carbon monoxide and carbon dioxide.
Thermal decomposition:	No data available

11. Toxicological information

Toxicological tests

Acute toxicity:	LD50 Rat, oral: 4,016 mg/kg
	LC50 Rat, inhalative: > 6 mg/L /4h
	LD50 Rabbit, dermal: > 10,000 mg/kg

Toxicological effects:

Acute toxicity (oral):

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: (in-vivo): Not an irritant (EU B.4)

Serious eye damage/irritation: Based on available data, the classification criteria are not met.

Specific symptoms in animal studies, rabbit: (in-vivo): Not an irritant (EU B.5)

Sensitisation to the respiratory tract: Lack of data.

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

Specific symptoms in animal studies, guinea pig (in-vivo): not sensitising (EU B.6)

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

Gene-mutations mammalian cells: negative (OECD 476).

Chromosomal aberrations mammalian cells: negative (OECD 473).

Bacterial mutagenicity: negative (Ames test, OECD 471) .

In-vivo:

Micronucleus test: negative (OECD 474).

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

NOAEL (inhalative), Mouse (male/female): 1,000 ppm (OECD 453)

NOAEL (inhalative), rat (male/female): 300 ppm (OECD 453)

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

Reproduction toxicity: NOAEL (inhalative), rat (male/female): 300 ppm (OECD 416)

Developmental toxicity: NOAEC (inhalative), rat (male/female): 1500 ppm (OECD 414)

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.

NOAEL (oral), rat (male): 919 mg/kg/d (OECD 407)

NOEL (inhalative), rat (male/female): 300 ppm (OECD 453)

NOEAL (inhalative), Rabbit (male/female): >1,000 mg/kg/d (OECD 410)

Aspiration hazard: Lack of data.

Other information:

After resorption of toxic quantities: CNS disorders

Toxic effect on liver. Toxic effect on kidneys.

Symptoms

Danger of cutaneous absorption.

Other symptoms: Mucous membrane irritation, vomiting.

In case of inhalation: Vapors are slightly irritating to mucous membranes.

Inhalation of vapors may induce headaches or vomiting.

Narcotic effect in case of higher doses or prolonged exposure.

In case of ingestion: Mucous membrane irritation, vomiting.

After contact with skin: Danger of cutaneous absorption.

After eye contact: May cause irritations.

12. Ecological information

Ecotoxicity

Aquatic toxicity:

Algae toxicity:
EC50 Pseudokirchneriella subcapitata (green algae): > 1,000 mg/L/7 d.

Daphnia toxicity:
LC50 Daphnia magna (Big water flea): 21,000 -25,900 mg/L/48h.

Fish toxicity:
LC50 Leuciscus idus: 4000 - 10000 mg/L/96 h.
LC50 Pimephales promelas (fathead minnow): 20,800 mg/L/96 h.
LC50 Oncorhynchus mykiss: >1,000 mg/L/96 h.
LC50 S. gairdnerii: >1000 mg/L

Effects in sewage plants: toxicity to microorganisms:
IC50 activated sludge: >1,000 mg/L/3h (OECD 209).

Mobility in soil

No data available

Persistence and degradability

Analytical method: OECD 301E

Degree of elimination: DOC reduction (28 days) 96%

Evaluation text: Product is readily biodegradable.

Additional ecological information

Oxygen demand: BOD: >60%

Volatile organic compounds (VOC):
100 % by weight / 921 g/L

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

13. Disposal considerations

Product

Recommendation: Incinerate as hazardous waste according to applicable local, state, and federal regulations.

Package

Recommendation: Dispose of waste according to applicable legislation.
Non-contaminated packages may be recycled.

14. Transport information

UN number

ADR/RID, IMDG, IATA-DGR:
UN 3092

UN proper shipping name

ADR/RID, IMDG, IATA-DGR:
UN 3092, 1-METHOXY-2-PROPANOL

Transport hazard class(es)

ADR/RID: Class 3, Code: F1
IMDG: Class 3, Subrisk -
IATA-DGR: Class 3



Packing group

ADR/RID, IMDG, 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: UN3092
Proper shipping name: UN 3092, 1-METHOXY-2-PROPANOL
Hazard class or Division: 3
Packing Group: III
Labels: 3
Special Provisions: B1, IB3, T2, TP1
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



Canada: Transportation of Dangerous Goods (TDG)

UN Number: UN3092
Shipping name: UN 3092, 1-METHOXY-2-PROPANOL
TDG class: 3
Packing group: III
Explosive limit and limited quantity index: 5 L
Passenger carrying road or rail index: 60 L

Sea transport (IMDG)

UN number: UN 3092
Proper shipping name: UN 3092, 1-METHOXY-2-PROPANOL
Class or division, Subsidiary risk: Class 3, Subrisk -
Packing Group: III
EmS: F-E, S-D
Special Provisions: -
Limited quantities: 5 L
Excepted quantities: E1
Package - Instructions: P001, LP01
Package - Provisions: -
IBC - Instructions: IBC03
IBC - Provisions: -
Tank instructions - IMO: -
Tank instructions - UN: T2
Tank instructions - Provisions: TP1
Stowage and handling: Category A.
Properties and observations: Colourless liquid. Flashpoint: 29°C to 35°C c.c. Explosive limits: 1,7% to 11,5%. Miscible with water. Reacts with strong oxidizing substances. Irritating to skin, eyes and mucous membranes
Marine pollutant: no
Segregation group: none

Air transport (IATA)

UN/ID number: UN 3092
Proper shipping name: UN 3092, 1-METHOXY-2-PROPANOL
Class or division, Subsidiary risk: Class 3
Packing Group: III
Hazard label: Flamm. liquid
Excepted Quantity Code: E1
Passenger and Cargo Aircraft: Ltd.Qty.: Pack.Instr. Y344 - Max. Net Qty/Pkg. 10 L
Passenger and Cargo Aircraft: Pack.Instr. 355 - Max. Net Qty/Pkg. 60 L
Cargo Aircraft only: Pack.Instr. 366 - Max. Net Qty/Pkg. 220 L
Emergency Response Guide-Code (ERG): 3L

15. Regulatory information

National regulations - Canada

DSL: listed

National regulations - U.S. Federal Regulations

TSCA Inventory: listed
Clean Air Act:
CAA SOCM Chemical: yes
NIOSH Recommendations:
Occupational Health Guideline: 0536

National regulations - U.S. State Regulations

Idaho Air Pollutant List:

Title 585: AAC: 18 - EL: 24 - OEL: 360 - Title 586: -

Massachusetts Haz. Substance codes: 4,6 F8

Minnesota Haz. Substance:

Codes: A - Ratings: 8.12 - Status: -

Pennsylvania Haz. Substance code: -

Washington Air Contaminant:

TWA: 100 ppm - 360 mg - STEL: 150 ppm - 540 mg

Idaho Air Pollutant List:

Title 585: AAC: 18 - EL: 24 - OEL: 360 - Title 586: -

Massachusetts Haz. Substance codes: 4,6 F8

Minnesota Haz. Substance:

Codes: A - Ratings: 8.12 - Status: -

Pennsylvania Haz. Substance code: -

Washington Air Contaminant:

TWA: 100 ppm - 360 mg - STEL: 150 ppm - 540 mg

National regulations - EC member states

EC-number: 203-539-1

EU index number: 603-064-00-3

16. Other information

Text for labeling:

Contains 100 % 1-Methoxy-2-propanol.

Contains 1-Methoxy-2-propanol.

Mixing ratio:

2 Components

1 Part Thinner for 635C2A

NFPA Hazard Rating:

Health: 1 (Slight)

Fire: 3 (Serious)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 1 (Slight)

Flammability: 3 (Serious)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

Hazard rating systems:



HEALTH	1
FLAMMABILITY	3
PHYSICAL HAZARD	0
	X

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
 BOD: Biochemical oxygen demand
 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
 DOC: Dissolved Organic Carbon
 EC: European Community
 EC50: Effective Concentration 50%
 EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods
 EN: European Standard
 EQ: Excepted quantities
 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
 log P(o/w): Partition coefficient: octanol/water
 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
 PVC: Polyvinyl chloride
 REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
 RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
 STOT SE: Specific target organ toxicity - single exposure
 TLV: Threshold Limit Value
 TRGS: Technical Rules for Hazardous Substances
 UN: United Nations
 vPvB: Very persistent and very bioaccumulative
 WEL: Workplace Exposure Limit
 WHMIS: Workplace Hazardous Materials Information System

Reason of change: Changes in section 8: Occupational exposure limit values
 Changes in section 8: Occupational exposure limit values
 Changes in section 8: Occupational exposure limit values
 Changes in section 8: Occupational exposure limit values

Date of first version: 26/11/1995

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.