

635L14 - ORTHOCRYL Spray Lacquer, clear

Material number 635L14

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1 Identification

Product identifier

Trade name: 635L14 - ORTHOCRYL Spray Lacquer, clear

Recommended use and restrictions on use

General use: Paint for orthopedic procedures. Aerosol.
Only for industrial users.

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

Aerosol 1

Extremely flammable aerosol. Pressurised container:
May burst if heated.

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

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Hazard statements:
Extremely flammable aerosol.
Pressurised container: May burst if heated.
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.
Do not spray on an open flame or other ignition source.
Do not pierce or burn, even after use.
Avoid breathing spray.
Wear protective gloves/protective clothing/eye protection.
Call a POISON CENTER/doctor if you feel unwell.
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

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.
Higher doses may lead to a narcotic effect.

3 Composition/Information on ingredients

Mixture

Chemical name: Blend of active ingredients with propellant.

Hazardous ingredients:

CAS No.	Designation	Content	Classification
CAS 67-64-1	Acetone	25 - 50 %	Flammable Liquid 2. Eye Irritation 2A. Specific Target Organ Toxicity (Single Exposure) 3.
CAS 123-86-4	n-Butyl acetate	25 - 50 %	Flammable Liquid 3. Specific Target Organ Toxicity (Single Exposure) 3.
CAS 141-78-6	Ethyl acetate	5 - 10 %	Flammable Liquid 2. Eye Irritation 2A. Specific Target Organ Toxicity (Single Exposure) 3.
CAS 13463-67-7	Titanium dioxide	1 - 10 %	Carcinogenicity 2.
CAS 106-97-8	n-Butane, pure	25 - 50 %	Flammable Gas 1. Liquefied Gas.
CAS 74-98-6	Propane	10 - 25 %	Flammable Gas 1. Liquefied Gas.

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. First aider: Pay attention to self-protection! If victim is at risk of losing consciousness, position and transport on their side.
In case of inhalation:	Move victim to fresh air, put at rest and loosen restrictive clothing. If the casualty has difficulty breathing, call a doctor immediately.
In case of swallowing:	Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Immediately get medical attention.
In case of skin contact:	Thoroughly wash skin with soap and water. Take off contaminated clothing and wash it before reuse. 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.
Product affects central nervous system.
Danger of metabolic acidosis.
Symptoms: Headache, dizziness, fatigue, muscle weakness, numbing effect and, in exceptional cases, unconsciousness.

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:	Water spray jet, Extinguishing powder, alcohol resistant foam, carbon dioxide
Unsuitable extinguishing media:	strong water jet

Specific hazards arising from the product

Extremely flammable aerosol. vapours may form explosive mixtures with air.
In case of fire may be liberated: Carbon monoxide and carbon dioxide
Danger of formation of toxic pyrolysis products.

Special protective equipment and precautions for fire-fighters

Wear self-contained breathing apparatus.

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Additional information:

- Use fine water spray to cool endangered containers.
- Heating will lead to pressure increase: danger of bursting and explosion. Use fine water spray to cool endangered containers.
- Move undamaged containers from immediate hazard area if it can be done safely.
- 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

- Eliminate all ignition sources if safe to do so.
- Wear appropriate protective equipment. Keep unprotected people away.
- Avoid breathing spray. Provide adequate ventilation.
- Avoid contact with skin and eyes. Take off contaminated clothing and wash it before reuse.
- Cordon off downwind area at risk and warn inhabitants.

Environmental precautions:

- Do not allow to enter into ground-water, surface water or drains. Danger of explosion!
- In case of release, notify competent authorities.

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. Beware of reignition.
- Thoroughly clean surrounding area.
- In case of greater quantities: Collect mechanically (use only explosion-proof equipment when pumping out).

Additional information: Use only explosion-protected equipment/instruments.

7 Handling and storage

Precautions for safe handling

Advices on safe handling:

- Provide adequate ventilation, and local exhaust as needed. Avoid breathing spray.
- Avoid contact with skin, eyes, and clothing. Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Have eye wash bottle or eye rinse ready at work place.

Precautions against fire and explosion:

- Air combined with vapours may form potentially explosive mixtures that are heavier than air.
- Protect from direct exposure to sunlight and temperatures exceeding 50 °C.
- Keep away from sources of ignition - No smoking.
- Take precautionary measures against static discharges.
- Do not open or incinerate, even when empty. Do not spray into flames or on incandescent objects.
- Use only non-sparking tools.
- Container under pressure.

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. Keep only in the original container.
Consider compliance with applicable regulations for pressurised small gas containers
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Hints on joint storage:

Keep away from combustible materials.
Keep away from food, drink and animal feedingstuffs.
Keep away from strong acids, strong bases and oxidizers.

8 Exposure controls/Personal protection

Control parameters

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
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
123-86-4	n-Butyl acetate	Canada: Alberta, OEL 15 min	950 mg/m ³ ; 200 ppm
		Canada: Alberta, OEL 8 hour	713 mg/m ³ ; 150 ppm
		Canada: BC, OEL STEL	150 ppm
		Canada: BC, OEL TWA	50 ppm
		Canada: Québec, VECD	150 ppm
		Canada: Québec, VEMP	50 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
13463-67-7	Titanium dioxide	Canada: Alberta, OEL 8 hour	10 mg/m ³
		Canada: BC, OEL TWA	10 mg/m ³ (inhalable fraction)
		Canada: BC, OEL TWA	3 mg/m ³ (respirable fraction)
		Canada: Québec, VEMP	10 mg/m ³ (total dust)
106-97-8	n-Butane, pure	Canada: Alberta, OEL 8 hour	1,000 ppm
		Canada: BC, OEL STEL	1,000 ppm
		Canada: Québec, VEMP	1,900 mg/m ³ ; 800 ppm
74-98-6	Propane	Canada: Alberta, OEL 8 hour	1,000 ppm

Biological limit values:

CAS No.	Designation	Type	Limit value	Parameter	Sampling
67-64-1	Acetone	USA: ACGIH-BEI, urine	25 mg/L	acetone	end of exposure or end of shift

Appropriate engineering controls

Take precautionary measures against static discharges.
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.
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.

Hand protection: Protective gloves according to OSHA Standard - 29 CFR: 1910.138.
Glove material: Nitrile rubber, butyl caoutchouc (butyl rubber)
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.

General hygiene considerations:

Keep away from heat sources, sparks and open flames.
Avoid breathing spray. Avoid contact with skin, eyes, and clothing. Take off contaminated clothing and wash it before reuse.
Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Have eye wash bottle or eye rinse ready at work place.

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
	Form: Aerosol
Colour:	Varying, see Product description
Odour:	Characteristic
Odour threshold:	No data available
Melting point and freezing point:	No data available
Boiling point or initial boiling point and boiling range:	60 - 100 °C (liquid)
Flammability:	No data available
Lower and upper explosion limit or lower and upper flammability limit:	LEL (Lower Explosion Limit): 1.50 Vol-% UEL (Upper Explosive Limit): 13.00 Vol-%
Flash point/flash point range:	<= -5 °C (liquid)
Evaporation rate:	No data available
Auto-ignition temperature:	Not self-igniting
Decomposition temperature:	No data available
pH:	No data available

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Water solubility:	Practically insoluble
Partition coefficient — n-octanol/water:	-0.23 log P(o/w) (Acetone) Based on the n-octanol/water partition coefficient accumulation in organisms is not expected. 1.8 log P(o/w) (Propane) Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected. at 20 °C: 1.09 log P(o/w) (Butane) Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected. at 25 °C: 2.3 log P(o/w) (n-Butyl acetate) Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected. at 25 °C: 0.68 log P(o/w) (Ethyl acetate) Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.
Vapour pressure:	at 20 °C: 4,000 hPa at 50 °C: 10,400 hPa
Density and/or relative density	at 20 °C: 0.95 g/mL (liquid)
Vapour density:	No data available
Particle characteristics:	Not applicable

Additional information

Explosive properties:	Potentially explosive vapour/air mixtures may form.
Ignition temperature:	490 °C

10 Stability and reactivity

Reactivity:	Extremely flammable aerosol. vapours may form explosive mixtures with air.
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	Pressurised container: May burst if heated. Exothermic reactions with: Strong oxidizing agents, strong acids, strong reducing agents
Conditions to avoid:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Do not force spray can open.
Incompatible materials:	Strong oxidizing agents, strong acids, strong alkalis
Hazardous decomposition products:	No hazardous decomposition products when regulations for storage and handling are observed.

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11 Toxicological information

Information on the likely routes of exposure

No data available

Health hazard information

Acute toxicity (oral): Lack of data.

Acute toxicity (dermal): Lack of data.

Acute toxicity (inhalative): Lack of data.

Skin corrosion/irritation: Lack of data.

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

Sensitisation to the respiratory tract: Lack of data.

Skin sensitisation: Lack of data.

Germ cell mutagenicity/Genotoxicity: Lack of data.

Carcinogenicity: Lack of data.

Reproductive toxicity: Lack of data.

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): Lack of data.

Aspiration hazard: Lack of data.

Other information:

Information about Acetone (CAS 67-64-1):

LD50 Rat, oral: 5,800 mg/kg (OECD 401)

LD50 Rabbit, dermal: > 15,800 mg/kg

LC50 Rat, inhalative (vapour): 76 mg/L/4h

Information about n-Butyl acetate (CAS 123-86-4):

LD50 Rat, oral: 10,760 mg/kg (OECD 423)

LD50 Rabbit, dermal: > 14,112 mg/kg (OECD 402)

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

LD50 Rat, oral: > 5,600 mg/kg

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

Information about Butane (CAS 106-97-8):

LC50 Rat, inhalative (gas): 539,600 ppmV/4h

Information about Propane (CAS 74-98-6):

LC50 Rat, inhalative (gas): 800,000 ppmV/0.25 h

Symptoms

In case of prolonged exposure: Systemic damage to kidneys, liver and heart as well as neuropsychiatric disturbances are produced. Other symptoms: lung damages. May produce blood effects.

In case of inhalation: dizziness, headache.

After contact with skin: Mild irritant.

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

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12 Ecological information

Ecotoxicity

Aquatic toxicity:

Information about Acetone (CAS 67-64-1):

Fish toxicity:

LC50 Oncorhynchus mykiss: 5,540 mg/L/96h

Daphnia toxicity:

EC50 Daphnia pulex (water flea): 8,800 mg/L/48h

Information about n-Butyl acetate (CAS 123-86-4):

Fish toxicity:

LC50 Pimephales promelas (fathead minnow): 18 mg/L/96h (OECD 203)

Daphnia toxicity:

EC50 Daphnia magna (Big water flea): 44 mg/L/48h

NOEC Daphnia magna (Big water flea): 23 mg/L/21d (OECD 211)

Algae toxicity:

EC50 Selenastrum capricornutum (green algae): 397 mg/L/72h (OECD 201)

NOEC Raphidocelis subcapitata (green algae): 196 mg/L/72h (OECD 201)

Bacterial toxicity:

IC50 Tetrahymena pyriformis: 356 mg/L/40h

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

Fish toxicity:

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

Daphnia toxicity:

EC50 Daphnia magna (Big water flea): 3,090 mg/L/24h

NOEC Daphnia magna (Big water flea): 2.4 mg/L

Algae toxicity:

NOEC Desmodesmus subspicatus (green algae): > 100 mg/L/72h (OECD 201)

Persistence and degradability

Further details:

Biodegradability:

Information about Acetone (CAS 67-64-1):

90.9 %/28 d (OECD 301 B), readily biodegradable

Information about n-Butyl acetate (CAS 123-86-4):

80 %/28 d (OECD 301 D), readily biodegradable

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

60 %/10 d, readily biodegradable

Information about Butane (CAS 106-97-8):

50 %/3.46 d (QSAR)

Information about Propane (CAS 74-98-6):

50 %/3 d (QSAR)

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Bioaccumulative potential

Partition coefficient — n-octanol/water:

-0.23 log P(o/w) (Acetone)

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

1.8 log P(o/w) (Propane)

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

at 20 °C: 1.09 log P(o/w) (Butane)

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

at 25 °C: 2.3 log P(o/w) (n-Butyl acetate)

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

at 25 °C: 0.68 log P(o/w) (Ethyl acetate)

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

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: Special waste. Dispose of waste according to applicable legislation.

Package

Recommendation: Dispose of waste according to applicable legislation.

14 Transport information

UN number

TDG: UN1950

IMDG, IATA-DGR: UN 1950

UN proper shipping name

TDG, IMDG: UN 1950, AEROSOLS

IATA-DGR: UN 1950, AEROSOLS, FLAMMABLE

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Transport hazard class

TDG: 2.1
IMDG: Class 2, Subrisk -, see SP63
IATA-DGR: Class 2.1



Packing group

TDG, IATA-DGR: not applicable
IMDG: -

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)

Special Provisions: 80, 107
Explosive limit and limited quantity index: 1 L
Passenger carrying road or rail index: 75 L

Sea transport (IMDG)

EmS: F-D, S-U
Special Provisions: 63 190 277 327 344 381 959
Limited quantities: See SP277
Excepted quantities: E0
Package - Instructions: P207, LP200
Package - Provisions: PP87, L2
IBC - Instructions: -
IBC - Provisions: -
Tank instructions - IMO: -
Tank instructions - UN: -
Tank instructions - Provisions: -
Stowage and handling: SW1 SW22
Segregation: SG69
Properties and observations: -
Marine pollutant: no
Segregation group: none

Air transport (IATA)

Proper shipping name: UN 1950, AEROSOLS, FLAMMABLE
Hazard label: Flamm. gas
Excepted Quantity Code: E0
Passenger and Cargo Aircraft: Ltd.Qty.: Pack.Instr. Y203 - Max. Net Qty/Pkg. 30 kg G
Passenger and Cargo Aircraft: Pack.Instr. 203 - Max. Net Qty/Pkg. 75 kg
Cargo Aircraft only: Pack.Instr. 203 - Max. Net Qty/Pkg. 150 kg
Special Provisions: A145 A167 A802
Emergency Response Guide-Code (ERG): 10L

15 Regulatory information

National regulations - Canada

Acetone:	DSL: listed
n-Butyl acetate:	DSL: listed
Ethyl acetate:	DSL: listed
Titanium dioxide:	DSL: listed
n-Butane, pure:	DSL: listed
Propane:	DSL: listed

Further regulations, limitations and legal requirements

No data available

16 Other information

Text for labelling:	Contains: Acetone, n-Butyl acetate, Ethyl acetate
Revision date:	17/12/2025
Date of first version:	21/10/1994
Reason of change:	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:

Aerosol: Aerosol
AS/NZS: Australian Standards/New Zealand Standards
Carcinogenicity: Carcinogenicity
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 Gas: Flammable gases
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
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
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.