

1 Identification

Product identifier

Trade name: 635L24 - 3D-Scanning Spray AESUB white

Recommended use and restrictions on use

General use: Spray for pre-treatment of surfaces for orthopedic procedures

Initial supplier identifier

Company name: Otto Bock HealthCare Canada Ltd.

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

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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
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Emergency telephone number

COLLECT, Telephone: (613) 996-6666

Transport:

CONSULTANK Lutz Harder GmbH (Contract QUALI003)

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2 Hazard identification

Classification

Aerosol 1 Extremely flammable aerosol. Pressurised container: May burst if heated.

Aquatic toxicity - acute 3 Harmful to aquatic life.

Information elements

Symbols:



Signal word:

Danger

Hazard statements:

Extremely flammable aerosol.
Pressurised container: May burst if heated.
Harmful to aquatic life.

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 release to the environment.

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

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. 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 64-17-5	Ethanol	10 - 25 %	Flammable Liquid 2. Eye Irritation 2A.
CAS 106-97-8	Butane	50 - 75 %	Flammable Gas 1A. Liquefied Gas. Aquatic toxicity - acute 3.
CAS 74-98-6	Propane	10 - 25 %	Flammable Gas 1A. Liquefied Gas. Aquatic toxicity - acute 3.
CAS 75-28-5	Isobutane	1 - 5 %	Flammable Gas 1A. Liquefied Gas. Aquatic toxicity - acute 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: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Seek 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. In case of eye irritation consult an ophthalmologist.

Most important symptoms and effects, whether acute or delayed

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

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, alcohol resistant foam, dry extinguishing powder, carbon dioxide

Unsuitable extinguishing media:

Full water jet

Specific hazards arising from the product

Extremely flammable aerosol. 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.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Do not breathe 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!

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.

Never return spills in original containers for re-use.

Additional information: Use explosion-proof equipment and non-sparking tools/utensils.

7 Handling and storage

Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Do not breathe 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. Use only non-sparking tools. Take precautionary measures against static discharge.
Use only explosion-protected equipment/instruments. In partially filled containers explosive mixtures may form.
Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source.

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 sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store containers in upright position.

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
64-17-5	Ethanol	Canada: Alberta, OEL 8 hour	1,880 mg/m ³ ; 1,000 ppm
		Canada: BC, OEL STEL	1,000 ppm
		Canada: Québec, VECD	1,000 ppm
106-97-8	Butane	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
75-28-5	Isobutane	Canada: BC, OEL STEL	1,000 ppm
		Canada: Québec, VECD	1,000 ppm

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 combination filter type ABEK-P2 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. 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:	Do not breathe 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:	Form: Aerosol white
Odour:	Characteristic
Odour threshold:	No data available
Melting point and freezing point:	Not applicable, Aerosol
Boiling point or initial boiling point and boiling range:	Not applicable, Aerosol
Flammability:	Extremely flammable aerosol.
Lower and upper explosion limit or lower and upper flammability limit:	LEL (Lower Explosion Limit): 2.50 Vol-% UEL (Upper Explosive Limit): 15.00 Vol-%
Flash point/flash point range:	-88.6 °C
Evaporation rate:	No data available
Auto-ignition temperature:	Not applicable, Aerosol
Decomposition temperature:	No data available
pH:	No data available
Water solubility:	Not miscible in every proportion

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Partition coefficient — n-octanol/water:	<p>at 20 °C: 2.89 log K(o/w) (Butane) Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected.</p> <p>at 20 °C: 2.76 log K(o/w) (Isobutane) Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected.</p> <p>at 20 °C: -0.35 log K(o/w) (Ethanol) Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.</p> <p>at 20 °C: 2.36 log K(o/w) (Propane) Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected.</p>
Vapour pressure:	No data available
Density and/or relative density	No data available
Vapour density:	No data available
Particle characteristics:	Not applicable

Additional information

Explosive properties:	Potentially explosive mixtures may form if adequate ventilation is not provided.
Oxidizing characteristics:	Not oxidising
Ignition temperature:	287 °C

10 Stability and reactivity

Reactivity:	Extremely flammable aerosol.
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	<p>Potentially explosive mixtures may form if adequate ventilation is not provided.</p> <p>Pressurised container: May burst if heated.</p>
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 sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
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.

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.

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

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

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 Butane (CAS 106-97-8):

LC50 Rat, inhalative (gas) : > 800,000 ppmV/15min

Information about Ethanol (CAS 64-17-5):

LD50 Rat, oral: 10,470 mg/kg (OECD 401)

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

LC50 Rat, inhalative (vapour) : > 50 mg/L/4h (OECD 403)

12 Ecological information

Ecotoxicity

Aquatic toxicity: Harmful to aquatic life.

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

Fish toxicity:

LC50: 25.4 mg/L/96h

NOEC: 1.81 mg/L/30d

Daphnia toxicity:

LC50: 14.8 mg/L/48h

NOEC Daphnia magna (Big water flea): 1.105 mg/L/30d

Algae toxicity:

EC50: 12.4 mg/L/96h

data obtained by analogy conclusion, e.g. (Q)SAR

Information about Ethanol (CAS 64-17-5):

Fish toxicity:

LC50 Oncorhynchus mykiss: 11,200 mg/L/96h

NOEC Danio rerio (zebrafish): 250 mg/L/5d (OECD 212)

Daphnia toxicity:

EC50 Artemia salina: 857 mg/L/48h

NOEC Daphnia magna (Big water flea): 9.6 mg/L/10d

Algae toxicity:

ErC50 Chlorella vulgaris (unicellular green algae): 275 mg/L/72h (OECD 201)

NOEC Chlorella vulgaris (unicellular green algae): 11.5 mg/L/72h (OECD 201)

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

Fish toxicity:

LC50: 53.1 mg/L/96h

NOEC: 3.6 mg/L/30d

Daphnia toxicity:

LC50: 1.95 mg/L/48h

NOEC Daphnia magna (Big water flea): 1.105 mg/L/30d

Algae toxicity:

EC50: 20.6 mg/L/96h

data obtained by analogy conclusion, e.g. (Q)SAR

Information about Isobutane (CAS 75-28-5):

Fish toxicity:

LC50: 29.5 mg/L/96h

NOEC: 2.09 mg/L/30d

Daphnia toxicity:

LC50: 17.1 mg/L/48h

NOEC Daphnia magna (Big water flea): 1.25 mg/L/30d

Algae toxicity:

EC50: 13.9 mg/L/96h

data obtained by analogy conclusion, e.g. (Q)SAR

Persistence and degradability

Further details: Biodegradability: Product is readily biodegradable.
Information about Butane (CAS 106-97-8), Propane (CAS 74-98-6), Isobutane (CAS 75-28-5): Easily bio-degradable (data obtained by analogy conclusion, e.g. (Q)SAR)
Information about Ethanol (CAS 64-17-5):
Oxygen consumption: 84%/20d

Bioaccumulative potential

Partition coefficient — n-octanol/water:
at 20 °C: 2.89 log K(o/w) (Butane)
Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected.
at 20 °C: 2.76 log K(o/w) (Isobutane)
Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected.
at 20 °C: -0.35 log K(o/w) (Ethanol)
Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.
at 20 °C: 2.36 log K(o/w) (Propane)
Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected.

Mobility in soil

No data available

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: Do not pierce or burn, even after use. Dispose of waste according to applicable legislation. Do not allow to enter drains.

Package

Recommendation: Empty carefully and completely, if possible. 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: UN1950
IMDG, IATA-DGR: UN 1950

UN proper shipping name

TDG, IMDG: UN 1950, AEROSOLS
IATA-DGR: UN 1950, AEROSOLS, FLAMMABLE

Transport hazard class

TDG: 2.1
IMDG: Class 2.1, Subrisk -
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: 1000 mL
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

Ethanol: DSL: listed
Butane: DSL: listed
Propane: DSL: listed
Isobutane: DSL: listed

Further regulations, limitations and legal requirements

No data available

16 Other information

Revision date: 8/4/2026
Date of first version: 7/4/2026
Classification procedure: Physical hazards: on basis of test data
Health hazards, environmental hazards: calculation method

Abbreviations and acronyms:

Aerosol: Aerosol
Aquatic toxicity - acute: Hazardous to the aquatic environment - acute
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 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
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
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
QSAR: Quantitative Structure-Activity Relationship
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



SAFETY DATA SHEET

according to Hazardous Products Regulations (HPR) 2022

635L24 - 3D-Scanning Spray AESUB white

Material number 635L24

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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.