

1. Product and company identification

Product identifier

Trade name: 635C1 - SuperSkin for PUR products

Recommended use and restrictions on use

General use: Fluid, polyurethane based thermoplastic film with quickly volatile organic solvent additives (THF) and colored with physiological innocuous pigments.
Reserved for industrial and professional use.

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: Physical state at 20 °C and 101.3 kPa: liquid

Color: Transparent

Odor: Ether

Classification: Flammable Liquid 2. Acute Toxicity 4 (oral). Acute Toxicity 4 (inhalative).
Eye Irritation 2A. Carcinogenicity 2. Reproductive toxicity 1B.
Specific Target Organ Toxicity (Single Exposure) 3.

Hazard symbols:



Signal word:

Danger

Hazard statements:

- Highly flammable liquid and vapor.
- Harmful if swallowed.
- Causes serious eye irritation.
- Harmful if inhaled.
- May cause respiratory irritation.
- May cause drowsiness or dizziness.
- Suspected of causing cancer.
- May damage the unborn child.

Precautionary statements:

- Obtain special instructions before use.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Avoid breathing mist/vapors/spray.
- Wear protective gloves/protective clothing/eye protection.
- IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
- IF exposed or concerned: Get medical advice/attention.
- In case of fire: Use dry powder, foam or water spray for extinction.
- Store in a well-ventilated place. Keep cool.

Regulatory status

This material is considered hazardous by the WHMIS in Canada.

Hazards not otherwise classified

Potentially explosive mixtures may form if adequate ventilation is not provided. May form explosive peroxides.
Special danger of slipping by leaking/spilling product.
see section 11: Toxicological information

3. Composition / Information on ingredients

Relevant ingredients:

CAS No.	Designation	Concentration	Classification
CAS 109-99-9	Tetrahydrofuran	33 - 60 %	Flammable Liquid 2. Acute Toxicity 4 (oral). Eye Irritation 2A. Carcinogenicity 2. Specific Target Organ Toxicity (Single Exposure) 3.
CAS 107-98-2	1-Methoxy-2-propanol	20 - 35 %	Flammable Liquid 3. Specific Target Organ Toxicity (Single Exposure) 3.
CAS 1589-47-5	2-Methoxypropanol	< 0.11 %	Flammable Liquid 3. Skin Irritation 2. Eye Damage 1. Reproductive toxicity 1B. Specific Target Organ Toxicity (Single Exposure) 3.

4. 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. First aider: Pay attention to self-protection!

In case of inhalation: Remove person to fresh air and keep comfortable for breathing. In case of irregular breathing or respiratory arrest provide artificial respiration. Call a doctor immediately.

Following skin contact: Immediately clean with water and soap followed by thorough rinsing. In case of skin reactions, consult a physician.

After 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.

After swallowing: Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Seek medical attention. Do not induce vomiting without medical advice.

Most important symptoms and effects, both acute and delayed

Harmful if swallowed or if inhaled.

Causes serious eye irritation.

May cause respiratory irritation. May cause drowsiness or dizziness.

Information to physician

Treat symptomatically.

5. Fire fighting measures

Flash point/flash point range:

-21.5 °C

Auto-ignition temperature: Not self-igniting

Suitable extinguishing media:

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

Extinguishing media which must not be used for safety reasons:

Full water jet

Specific hazards arising from the chemical

May form explosive peroxides.

Highly flammable liquid and vapor.

Air combined with vapors may form potentially explosive mixtures that are heavier than air. Vapors may proceed on the ground over great distances and cause fire and backflashes.

May form dangerous gases and vapors in case of fire. Furthermore, there may develop: carbon monoxide and carbon dioxide

Special protective equipment and precautions for fire-fighters:

Wear a self-contained breathing apparatus and chemical 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.

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: Avoid exposure. Do not breathe mist/vapors/spray. Avoid contact with the substance. If possible, eliminate leakage. Provide adequate ventilation. Wear appropriate protective equipment. Take off 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 for clean-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.
In case of greater quantities: Collect mechanically (use only explosion-proof equipment when pumping out). Never return spills in original containers for re-use.

Additional information: Special danger of slipping by leaking/spilling product.

7. Handling and storage

Handling

Advices on safe handling: Obtain special instructions before use. Provide adequate ventilation, and local exhaust as needed. Do not breathe mist/vapors/spray. Do not get in eyes, on skin, or on 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 thoroughly after handling. 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.
Take precautionary measures against static discharge. Provide earthing of containers, equipment, pumps and ventilation facilities.
Use explosion-proof machinery, apparatus, ventilation facilities, tools etc.

Storage

Requirements for storerooms and containers: Keep container tightly closed and in a well-ventilated place.
Keep container dry. Keep only in the original container.
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
Store containers in upright position. Only trained personnel may be allowed to enter storage area.
Provide for retaining containers, e.g. floor pan without outflow.
storage stability: 2 years

Hints on joint storage: Keep away from food, drink and animal feedingstuffs.
Do not store together with: reducing agents, oxidizing agents, halogenic hydrocarbons, alkali metals, Ethanolamine.

8. Exposure controls / personal protection

Exposure guidelines

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
109-99-9	Tetrahydrofuran	Canada: OEL 15 min	295 mg/m ³ ; 100 ppm (may be absorbed through the skin)
		Canada: OEL 8 hour	147 mg/m ³ ; 50 ppm (may be absorbed through the skin)
		Canada: OEL STEL	100 ppm (may be absorbed through the skin)
		Canada: OEL TWA	50 ppm (may be absorbed through the skin)
		Canada: VECD	100 ppm (may be absorbed through the skin)
		Canada: VEMP	50 ppm (may be absorbed through the skin)
107-98-2	1-Methoxy-2-propanol	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
1589-47-5	2-Methoxypropanol	Canada: OEL STEL	40 ppm
		Canada: OEL TWA	20 ppm

Engineering controls

Provide for good ventilation or exhaust system or work with completely self-contained equipment.

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: Flame retardant, antistatic and chemical resistant protective clothing.
Protective gloves according to OSHA Standard - 29 CFR: 1910.138.
Glove material: butyl caoutchouc (butyl rubber) - Layer thickness: ≥ 0.7 mm.
Breakthrough time: ≥ 480 min.
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

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

General hygiene considerations:

Obtain special instructions before use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Do not breathe mist/vapors/spray. Do not get in eyes, on skin, or on clothing.
When using do not eat, drink or smoke. Wash hands thoroughly after handling. Take off 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

Appearance:	Physical state at 20 °C and 101.3 kPa: liquid Color: Transparent
Odor:	Ether
Odor threshold:	No data available
pH:	approx. 6.9 (-)
Melting point/freezing point:	-108 °C
Initial boiling point and boiling range:	56 °C
Flash point/flash point range:	-21.5 °C
Evaporation rate:	No data available
Flammability:	Highly flammable liquid and vapor.
Explosion limits:	LEL (Lower Explosion Limit): 1.50 Vol-% UEL (Upper Explosive Limit): 12.00 Vol-%
Vapor pressure:	at 20 °C: 200 hPa (-)
Vapor density:	No data available
Density:	at 20 °C: 1.19 g/mL (-)
Water solubility:	Partially soluble (-)
Partition coefficient: n-octanol/water:	at 20 °C: 0.37 log K(o/w) (1-Methoxy-2-propanol) Based on the n-octanol/water partition coefficient accumulation in organisms is not expected. at 25 °C: 0.45 log K(o/w) (Tetrahydrofuran) Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.
Auto-ignition temperature:	Not self-igniting
Thermal decomposition:	No data available
Viscosity, kinematic:	at 20 °C: 200 mm ² /s (-)
Explosive properties:	Product is not explosive. Potentially explosive vapor/air mixtures may form.
Ignition temperature:	230 °C

10. Stability and reactivity

Reactivity:	Highly flammable liquid and vapor. Vapors may form explosive mixtures with air. May form explosive peroxides.
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Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	Heating will lead to pressure increase: Danger of bursting and explosion. Peroxide formation possible with air oxygen.
Conditions to avoid:	Keep away from heat sources, sparks and open flames. Protect from direct sunlight.
Incompatible materials:	Oxidizing agents, reducing agent, halogenated hydrocarbons, alkali metals, ethanolamine.
Hazardous decomposition products:	No hazardous decomposition products when regulations for storage and handling are observed.
Thermal decomposition:	No data available

11. Toxicological information

Toxicological tests

Toxicological effects:	<p>The statements are derived from the properties of the single components. No toxicological data is available for the product as such.</p> <p>Acute toxicity (oral): Acute Toxicity 4 (oral) = Harmful if swallowed.</p> <p>Acute toxicity (dermal): Based on available data, the classification criteria are not met.</p> <p>Acute toxicity (inhalative): Acute Toxicity 4 (inhalative) = Harmful if inhaled.</p> <p>Skin corrosion/irritation: Lack of data.</p> <p>Serious eye damage/irritation: Eye Irritation 2A = Causes serious eye irritation.</p> <p>Sensitisation to the respiratory tract: Based on available data, the classification criteria are not met.</p> <p>Skin sensitisation: Based on available data, the classification criteria are not met.</p> <p>Germ cell mutagenicity/Genotoxicity: Based on available data, the classification criteria are not met.</p> <p>Carcinogenicity: Carcinogenicity 2 = Suspected of causing cancer.</p> <p>Reproductive toxicity: Reproductive toxicity 1B = May damage the unborn child.</p> <p>Effects on or via lactation: Lack of data.</p> <p>Specific target organ toxicity (single exposure): Specific Target Organ Toxicity (Single Exposure) 3 = May cause respiratory irritation. May cause drowsiness or dizziness.</p> <p>Specific target organ toxicity (repeated exposure): Based on available data, the classification criteria are not met.</p> <p>Aspiration hazard: Based on available data, the classification criteria are not met.</p>
Other information:	<p>Information about Tetrahydrofuran (CAS 109-99-9):</p> <p>LD50 Rat, oral: 1,650 mg/kg</p> <p>LD50 Rat, dermal: > 2,000 mg/kg</p> <p>LC50 Rat, inhalative (vapor): > 14.7 mg/L/6h</p> <p>Information about 1-Methoxy-2-propanol (CAS 107-98-2):</p> <p>LD50 Rat, oral: 4,016 mg/kg</p> <p>LD50 Rabbit, dermal: > 2,000 mg/kg, no mortality occurred</p> <p>LC50 Rat, inhalative, (vapor): > 25.8 mg/L/6h</p>

Symptoms

In case of inhalation:

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

Higher doses may lead to a narcotic effect.

After contact with skin:

Prolonged or repeated contact with skin or mucous membrane result in irritation symptoms such as redness, blistering, dermatitis, etc.

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

12. Ecological information

Ecotoxicity

Aquatic toxicity:

Information about Tetrahydrofuran (CAS 109-99-9):

Fish toxicity:

LC50 Pimephales promelas (fathead minnow): 2,160 mg/L/4h (OECD 203)

NOEC Pimephales promelas (fathead minnow): 216 mg/L/33d (OECD 210)

Daphnia toxicity:

LC50 Daphnia magna (Big water flea): 3,485 mg/L/48h (OECD 202)

Algae toxicity:

NOEC Scenedesmus quadricauda: 3,700 mg/L (static)

Information about 1-Methoxy-2-propanol (CAS 107-98-2):

Fish toxicity:

LC50 Oncorhynchus mykiss: $\geq 1,000$ mg/L/96h (OECD 203)

Daphnia toxicity:

LC50 Daphnia magna (Big water flea): 20,100 - 25,900 mg/L

Algae toxicity:

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

Effects in sewage plants:

Information about Tetrahydrofuran (CAS 109-99-9):

IC50 activated sludge: 460 mg/L/3h (OECD 209)

Information about 1-Methoxy-2-propanol (CAS 107-98-2):

IC50 activated sludge: $> 1,000$ mg/L (OECD 209)

Mobility in soil

No data available

Persistence and degradability

Further details:

Biodegradability:

Information about Tetrahydrofuran (CAS 109-99-9):

Oxygen consumption: 39%/28d (OECD 301 D), inherently biodegradable

Information about 1-Methoxy-2-propanol (CAS 107-98-2):

DOC reduction: 96%/28d (OECD 301 E), easily bio-degradable

Additional ecological information

Volatile organic compounds (VOC):

80 % by weight

General information:

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

13. Disposal considerations

Product

Recommendation: Dispose of waste according to applicable legislation. Do not dispose of with household waste. Send to a hazardous waste incinerator facility under observation of official regulations.

Package

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

14. Transport information

UN number

ADR/RID, IMDG, IATA-DGR:

UN 1993

UN proper shipping name

ADR/RID, IMDG, IATA-DGR:

UN 1993, FLAMMABLE LIQUID, N.O.S. (Tetrahydrofuran
1-Methoxy-2-propanol mixture)

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:

II

Environmental hazards

Marine pollutant:

no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

Canada: Transportation of Dangerous Goods (TDG)

UN Number:

UN1993

Shipping name:

UN 1993, Flammable liquid, n.o.s. (Tetrahydrofuran
1-Methoxy-2-propanol mixture)

TDG class:

3

Packing group:

II

Special provisions:

16, 150

Explosive limit and limited quantity index:

1 L

Passenger carrying road or rail index:

5 L

Marine pollutant:

P

Sea transport (IMDG)

UN number: UN 1993
 Proper shipping name: UN 1993, FLAMMABLE LIQUID, N.O.S. (Tetrahydrofuran 1-Methoxy-2-propanol mixture)
 Class or division, Subsidiary risk: Class 3, Subrisk -
 Packing Group: II
 EmS: F-E, S-E
 Special Provisions: 274
 Limited quantities: 1 L
 Excepted quantities: E2
 Package - Instructions: P001
 Package - Provisions: -
 IBC - Instructions: IBC02
 IBC - Provisions: -
 Tank instructions - IMO: -
 Tank instructions - UN: T7
 Tank instructions - Provisions: TP1, TP8, TP28
 Stowage and handling: Category B.
 Properties and observations: -
 Marine pollutant: no
 Segregation group: none

Air transport (IATA)

UN/ID number: UN 1993
 Proper shipping name: UN 1993, FLAMMABLE LIQUID, N.O.S. (Tetrahydrofuran 1-Methoxy-2-propanol mixture)
 Class or division, Subsidiary risk: Class 3
 Packing Group: II
 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
 Special Provisions: A3
 Emergency Response Guide-Code (ERG): 3H

15. Regulatory information

National regulations - Canada

Tetrahydrofuran: DSL: listed
 1-Methoxy-2-propanol: DSL: listed
 2-Methoxypropanol: DSL: listed

16. Other information

Text for labeling: Contains 33 - 60 % Tetrahydrofuran, 20 - 35 % 1-Methoxy-2-propanol, < 0.11 % 2-Methoxypropanol.

Hazard rating systems:



NFPA Hazard Rating:

Health: 3 (Serious)

Fire: 3 (Serious)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 3 (Serious) - Chronic effects

Flammability: 3 (Serious)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

HEALTH	*	3
FLAMMABILITY		3
PHYSICAL HAZARD		0
		X

Classification procedure:

Physical hazards: on basis of test data

Health hazards, environmental hazards: calculation method

Abbreviations and acronyms:

Acute Toxicity: Acute toxicity
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
BCF: Bioconcentration Factor
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
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
Eye Damage: Eye damage
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
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
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
Reproductive toxicity: Reproductive toxicity
RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
Skin Irritation: Skin irritation
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 1: Material number, Trade name

Changes in section 2: Classification, labeling

Changes in section 12: Ecological information

General revision

Date of first version:

20/1/1996



SAFETY DATA SHEET

according to WHMIS 2015 and ANSI Z400.1-2010

635C1 - SuperSkin for PUR products

Material number 635C 1

Revision date: 15/7/2025

Version: 12.0

Replaces version: 11.1

Language: en-CA

Date of print: 2/9/2025

Page: 12 of 12

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.