

1. Product and company identification

Product identifier

Trade name: 633T2 - Teflon-Spray

Recommended use and restrictions on use

General use: release agent, lubricating agent, lubricant for orthopedic procedures.
For use in industrial installations and professional treatment only.

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

Form: Aerosol

Color: colorless

Odor: characteristic

Classification: Aerosol 1. Eye Irritation 2A.

Hazard symbols:



Signal word: **Danger**

Hazard statements: Extremely flammable aerosol.

Pressurised container: May burst if heated.

Causes serious eye irritation.

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.
 Wash hands and face thoroughly after handling.
 Wear protective gloves/protective clothing/eye protection.
 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

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.
 Inhaling can lead to irritations of the respiratory tract and mucous membrane.
 Higher doses may lead to a narcotic effect.
 see section 11: Toxicological information

3. Composition / Information on ingredients

Chemical characterisation: Mixture of the substances listed below with non-hazardous additions:

Relevant ingredients:

CAS No.	Designation	Concentration	Classification
CAS 67-63-0	Isopropyl alcohol	< 10 %	Flammable Liquid 2. Eye Irritation 2A. Specific Target Organ Toxicity (Single Exposure) 3.
CAS 5593-70-4	Titanium tetrabutanolat	< 3 %	Flammable Liquid 3. Skin Irritation 2. Eye Damage 1.
CAS 106-97-8	Butane	25 - 50 %	Flammable Gas 1. Compressed Gas.
CAS 74-98-6	Propane	25 - 50 %	Flammable Gas 1. Compressed Gas.

4. First aid measures

General information: If medical advice is needed, have product container or label at hand. First aider: Pay attention to self-protection!
In case of inhalation: Move victim to fresh air, put at rest and loosen restrictive clothing. If breathing becomes irregular or ceases, apply rescue breathing or artificial respiration immediately, where required supply oxygen. Seek medical aid in case of troubles.
Following skin contact: After contact with skin, wash immediately with soap and plenty of water. 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: Do not induce vomiting. Rinse mouth and seek medical attention immediately.

Most important symptoms and effects, both acute and delayed

Causes serious eye irritation.

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

Higher doses may lead to a narcotic effect.

Information to physician

Treat symptomatically.

5. Fire fighting measures

Flash point/flash point range:

-97 °C

Auto-ignition temperature: not self-igniting

Suitable extinguishing media:

Carbon dioxide, extinguishing powder, sand

Extinguishing media which must not be used for safety reasons:

Water

Specific hazards arising from the chemical

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

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.

Additional information:

Use fine water spray to cool endangered containers.

Container under pressure. Heating will lead to pressure increase: Danger of bursting and explosion.

6. Accidental release measures

Personal precautions:

Do not breathe spray. Avoid contact with the substance.

Eliminate all ignition sources if safe to do so. Provide adequate ventilation.

Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse. Keep unprotected people away.

Environmental precautions:

Do not allow to enter soil, sewage, water bodies, lower level rooms or pits.

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).

Thoroughly clean surrounding area. Never use water.

Additional information:

Keep away from sources of ignition and heat.

7. Handling and storage

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. Wear appropriate protective equipment. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse. Guarantee sufficient ventilation during and after use, in order to prevent vapour accumulation. When handling large quantities, supply emergency spray.

Precautions against fire and explosion:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source.

Storage

Requirements for storerooms and containers:

Keep container tightly closed in a cool, well-ventilated place.

8. Exposure controls / personal protection

Exposure guidelines

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
67-63-0	Isopropyl alcohol	Canada: OEL 15 min	984 mg/m ³ ; 400 ppm
		Canada: OEL 8 hour	492 mg/m ³ ; 200 ppm
		Canada: OEL STEL	400 ppm
		Canada: OEL TWA	200 ppm
		Canada: VECD	400 ppm
		Canada: VEMP	200 ppm
106-97-8	Butane	Canada: OEL 8 hour	1,000 ppm
		Canada: OEL STEL	1,000 ppm
		Canada: VEMP	1,900 mg/m ³ ; 800 ppm
74-98-6	Propane	Canada: OEL 8 hour	1,000 ppm

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.

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. The filter class must be suitable for the maximum contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product.

General hygiene considerations:

Do not breathe spray. Do not get in eyes, on skin, or on clothing. Wear appropriate protective equipment.

Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse.

When handling large quantities, supply emergency spray.

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 Form: Aerosol Color: colorless
Odor:	characteristic
Odor threshold:	No data available
pH:	No data available
Melting point/freezing point:	not determined
Initial boiling point and boiling range:	-44 °C
Flash point/flash point range:	-97 °C
Evaporation rate:	No data available
Flammability:	Extremely flammable aerosol.
Explosion limits:	LEL (Lower Explosion Limit): 1.50 Vol-% UEL (Upper Explosive Limit): 10.90 Vol-%
Vapor pressure:	at 20 °C: 8,300 hPa
Vapor density:	No data available
Density:	1 g/mL
Solubility:	No data available
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	not self-igniting
Thermal decomposition:	No data available
Ignition temperature:	> 365 °C

10. Stability and reactivity

Reactivity:	Extremely flammable aerosol. Vapors may form explosive mixtures with air.
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	Pressurised container: May burst if heated.
Conditions to avoid:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Incompatible materials: Strong oxidizing agents, strong acids.

Hazardous decomposition products:
Highly inflammable gases

Thermal decomposition: No data available

11. Toxicological information

Toxicological tests

Toxicological effects: The statements are derived from the properties of the single components. No toxicological data is available for the product as such.

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: Eye Irritation 2A = Causes serious eye irritation.

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 Isopropyl alcohol:

LD50 Rat, oral: 4,570 mg/kg

LD50 Rabbit, dermal: 13,400 mg/kg

LC50 Rat, inhalative: 30 mg/L/4h

Information about Titanium tetrabutanolate:

LD50 Rat, oral: 3,122 mg/kg

Information about Butane:

LC50 Rat, inhalative: 658 mg/L/4h

For carcinogenic effects:

Information about Isopropyl alcohol:

IARC Rating: Group 3

OSHA Carcinogen: not listed

NTP Rating: not listed

Symptoms

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

Higher doses may lead to a narcotic effect.

12. Ecological information

Ecotoxicity

Aquatic toxicity: Information about Isopropyl alcohol:
 Fish toxicity:
 LC50 Pimephales promelas (fathead minnow): 9,640 mg/L/96h
 Daphnia toxicity:
 EC50 Daphnia magna (Big water flea): 9,714 mg/L/24h

Mobility in soil

No data available

Persistence and degradability

Further details: Not easily bio-degradable.

Additional ecological information

Volatile organic compounds (VOC):
 96.63 % by weight / 966.3 g/L
 General information: Do not allow to penetrate into soil, waterbodies or drains.

13. Disposal considerations

Product

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

Package

Recommendation: Handle empty containers with care. Incineration may cause explosion.
 Dispose of waste according to applicable legislation.

14. Transport information

UN number

ADR/RID, IMDG, IATA-DGR:
 UN 1950

UN proper shipping name

ADR/RID, IMDG: UN 1950, AEROSOLS
 IATA-DGR: UN 1950, AEROSOLS, FLAMMABLE

Transport hazard class(es)

ADR/RID: Class 2, Code: 5F
 IMDG: Class 2, Subrisk -, see SP63
 IATA-DGR: Class 2.1

Packing group

ADR/RID, IATA-DGR: not applicable
 IMDG: -



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: UN1950
 Shipping name: UN 1950, AEROSOLS
 TDG class: 2.1
 Special provisions: 80, 107
 Explosive limit and limited quantity index: 1 L
 Passenger carrying road or rail index: 75 L

Sea transport (IMDG)

UN number: UN 1950
 Proper shipping name: UN 1950, AEROSOLS
 Class or division, Subsidiary risk: Class 2, Subrisk -, see SP63
 Packing Group: -
 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)

UN/ID number: UN 1950
 Proper shipping name: UN 1950, AEROSOLS, FLAMMABLE
 Class or division, Subsidiary risk: Class 2.1
 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

Isopropyl alcohol: DSL: listed

Titanium tetrabutanolate: DSL: listed

Butane: DSL: listed

Propane: DSL: listed

16. Other information

Text for labeling:

Contains < 10 % Isopropyl alcohol, < 3 % Titanium tetrabutanolate, 25 - 50 % Butane, 25 - 50 % Propane. Safety data sheet available on request.

Hazard rating systems:



NFPA Hazard Rating:

Health: 1 (Slight)

Fire: 4 (Severe)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 1 (Slight)

Flammability: 4 (Severe)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

HEALTH	1
FLAMMABILITY	4
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
 Aerosol: Aerosol
 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
 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 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
 OEL: Occupational Exposure Limit Value
 OSHA: Occupational Safety and Health Administration
 PBT: Persistent, bioaccumulative and toxic
 PNEC: Predicted no-effect concentration
 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: **General revision**

Date of first version: **20/3/1998**

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.