

## 1. Identification

### Product identifier

Trade name: 633T2 - Teflon-Spray

### Relevant identified uses of the substance or mixture and uses advised against

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

### Details of the supplier of the safety data sheet

Company name: Otto Bock Health Care  
Street/POB-No.: 3820 W. Great Lakes Drive  
Zip code, city: Salt Lake City, UT 84120  
USA

WWW: [www.ottobockus.com](http://www.ottobockus.com)

Telephone: +1 (801) 956-2400

Telefax: +1 (801) 956-2401

Department responsible for information:  
Quality Department,  
Telephone: +1 (801) 954-2304 (7 AM – 3 PM, Mountain Time),  
Email: [USRegulatory@ottobock.com](mailto:USRegulatory@ottobock.com)

Additional information: Corporate headquarters:  
Ottobock SE & Co. KGaA  
Max-Näder-Straße 15  
Duderstadt  
Germany

### Emergency telephone number

**CHEMTREC, Telephone: +1 (800) 424-9300**

**Transport:**

**CONSULTANK Lutz Harder GmbH (Contract QUALI003)**

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

## 2. Hazard identification

### Classification of the substance or mixture

Flammable Aerosol - Category 1 Extremely flammable aerosol.

Compressed Gas Contains gas under pressure; may explode if heated.

Eye Irritation - Category 2A Causes serious eye irritation.

### Label elements

Symbols:



Signal word: **Danger**

Hazard statements: Extremely flammable aerosol.  
Contains gas under pressure; may explode 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.

### Other hazards

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

### Mixtures

Chemical characterization: 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 - Category 2. Eye Irritation - Category 2A. Specific Target Organ Toxicity (Single Exposure) - Category 3.
CAS 5593-70-4	Titanium tetrabutanolat	< 3 %	Flammable Liquid - Category 3. Skin Irritation - Category 2. Eye Damage - Category 1.
CAS 106-97-8	Butane	25 - 50 %	Flammable Gas - Category 1. Compressed Gas.
CAS 74-98-6	Propane	25 - 50 %	Flammable Gas - Category 1A. Compressed Gas.

The actual concentration or concentration range is withheld as a trade secret.

## 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/effects, 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

### Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:

Carbon dioxide, dry chemical 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

### Protective equipment and precautions for firefighters

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, protective equipment and emergency procedures

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 and material for containment and cleaning up

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

### 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. 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 vapor 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.

### Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

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

## 8. Exposure controls/personal protection

### Control parameters

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
67-63-0	Isopropyl alcohol	USA: ACGIH: STEL	984 mg/m <sup>3</sup> ; 400 ppm
		USA: ACGIH: TWA	492 mg/m <sup>3</sup> ; 200 ppm
		USA: IDLH: TWA	2,000 ppm [10% LEL]
		USA: NIOSH: STEL	1,225 mg/m <sup>3</sup> ; 500 ppm
		USA: NIOSH: TWA	980 mg/m <sup>3</sup> ; 400 ppm
		USA: OSHA: TWA	980 mg/m <sup>3</sup> ; 400 ppm
106-97-8	Butane	USA: ACGIH: TWA	1,000 ppm
		USA: IDLH: TWA	1,600 ppm [>10% LEL]
		USA: NIOSH: TWA	1,900 mg/m <sup>3</sup> ; 800 ppm
74-98-6	Propane	USA: IDLH: TWA	2,100 ppm [10% LEL]
		USA: NIOSH: TWA	1,800 mg/m <sup>3</sup> ; 1,000 ppm
		USA: OSHA: TWA	1,800 mg/m <sup>3</sup> ; 1,000 ppm

Biological limit values:

CAS No.	Designation	Type	Limit value	Parameter	Sampling
67-63-0	Isopropyl alcohol	USA: ACGIH-BEI, urine	40 mg/L	Acetone in urine	end of shift at end of work week

### Appropriate engineering controls

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

### Personal protection equipment (PPE)

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.

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

Physical state at 68 °F and 101.3 kPa	liquid
	Form: Aerosol
Color:	colorless
Odor:	characteristic
Odor threshold:	No data available
Melting point/freezing point:	not determined
Initial boiling point and boiling range:	-47.2 °F
Flammability:	Extremely flammable aerosol.
Explosion limits:	LEL (Lower Explosion Limit): 1.50 Vol-% UEL (Upper Explosive Limit): 10.90 Vol-%
Flash point/flash point range:	-142.6 °F
Evaporation rate:	No data available
Auto-ignition temperature:	not self-igniting
Decomposition temperature:	No data available
pH:	No data available
Viscosity:	No data available
Solubility:	No data available
Partition coefficient: n-octanol/water:	No data available
Vapor pressure:	at 68 °F: 8,300 hPa
Density:	1 g/mL
Vapor density:	No data available
Particle characteristics:	Not applicable

### Additional information

Ignition temperature:	> 689 °F
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## 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

## 11. Toxicological information

### Information on toxicological effects

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): Based on available data, the classification criteria are not met.</p> <p>Acute toxicity (dermal): Based on available data, the classification criteria are not met.</p> <p>Acute toxicity (inhalative): Based on available data, the classification criteria are not met.</p> <p>Skin corrosion/irritation: Based on available data, the classification criteria are not met.</p> <p>Serious eye damage/irritation: Eye Irritation - Category 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: Based on available data, the classification criteria are not met.</p> <p>Reproductive toxicity: Based on available data, the classification criteria are not met.</p> <p>Effects on or via lactation: Lack of data.</p> <p>Specific target organ toxicity (single exposure): Based on available data, the classification criteria are not met.</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>
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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

### Persistence and degradability

Further details: Not easily bio-degradable.

### Bioaccumulative potential

Partition coefficient: n-octanol/water:  
 No data available

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

## 14. Transport information

### UN number

DOT: UN1950  
IMDG, IATA-DGR: UN 1950

### UN proper shipping name

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

### Transport hazard class(es)

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



### Packing group

DOT, IATA-DGR: not applicable  
IMDG: -

### Environmental hazards

Marine pollutant: no

### Transport in bulk according to IMO instruments

No data available

### Special precautions for user

#### USA: Department of Transportation (DOT)

Labels: 2.1  
Special Provisions: N82  
Packaging – Exceptions: 306  
Packaging – Non-bulk: None  
Packaging – Bulk: None  
Quantity limitations – Passenger aircraft / rail: 75 kg  
Quantity limitations – Cargo only: 150 kg  
Vessel stowage – Location: A  
Vessel stowage – Other: 25, 87, 126, 157



### 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 - U.S. Federal Regulations

Isopropyl alcohol:	TSCA Inventory: listed Carcinogen Status: IARC Rating: Group 3 OSHA Carcinogen: not listed NTP Rating: not listed  Other Environmental Laws: SARA Title III, Section 313, Toxic Release: NPFAS; De Minimis <=1.0 %; Thresholds 25000/10000 lbs NIOSH Recommendations: Occupational Health Guideline: 0359
Titanium tetrabutanolate:	TSCA Inventory: listed
Butane:	TSCA Inventory: listed Clean Air Act: CAA Accidental Release Prevention: Threshold 10000 lbs. / Basis for listing = f NIOSH Recommendations: Occupational Health Guideline: 0068*
Propane:	TSCA Inventory: listed Clean Air Act: CAA Accidental Release Prevention: Threshold 10000 lbs. / Basis for listing = f NIOSH Recommendations: Occupational Health Guideline: 0524

### National regulations - U.S. State Regulations

No data available

### Further regulations, limitations and legal requirements

No data available

## 16. Other information

Text for labeling: Contains < 10 % Isopropyl alcohol, < 3 % Titanium tetrabutanolate, 25 - 50 % Butane, 25 - 50 % Propane.

Revision date: 11/28/2025

Date of first version: 12/31/2020

Reason of change: General revision: Safety Data Sheet according to HCS 2024 (29 CFR 1910.1200)

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:

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  
 DOT: Department of Transportation's Safety Regulations (USA)  
 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  
 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

### 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.