

## 1 Identification

### Product identifier

Trade name: 633F14 - Molykote DX Paste

### Recommended use and restrictions on use

General use: Lubricating agent.  
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

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

Aquatic toxicity - acute 1 Very toxic to aquatic life.

Aquatic toxicity - chronic 2 Toxic to aquatic life with long lasting effects.

### Information elements

Symbols:



Signal word:

**Warning**

Hazard statements:

Very toxic to aquatic life with long lasting effects.

## Precautionary statements:

Avoid release to the environment.

Collect spillage.

Dispose of contents/container to hazardous or special waste collection point.

**Other hazards known to the supplier with respect to the product**

### 3 Composition/Information on ingredients

**Mixture**

Chemical name: mixture contains inorganic materials, organic compounds

Hazardous ingredients:

CAS No.	Designation	Content	Classification
CAS 64742-52-5	Distillates (petroleum), hydrotreated heavy naphthenic	35 - 65 %	Aspiration Toxicity 1.
CAS 61791-53-5	Amines, N-tallow alkyltrimethylenedi-, oleates	2 - 4 %	Skin Irritation 2. Eye Irritation 2A. Specific Target Organ Toxicity (Repeated Exposure) 2. Aquatic toxicity - acute 1 (M-factor = 10). Aquatic toxicity - chronic 2.
CAS 1314-13-2	Zinc oxide	1 - 3 %	Aquatic toxicity - acute 1 (M-factor = 1). Aquatic toxicity - chronic 1 (M-factor = 1).
CAS 64742-54-7	Distillates (petroleum), hydrotreated heavy paraffinic	1 - 3 %	Aspiration Toxicity 1.

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

Additional information: Contains Polytetrafluorethylene, Distillates (petroleum), solvent-dewaxed heavy paraffinic. The maximum workplace exposure limits are, where necessary, listed in section 8.

Information about Distillates (petroleum), solvent-dewaxed heavy paraffinic: Contains <3 % DMSO - extract (IP 346). Here applies the note L.

### 4 First-aid measures

**Description of necessary first-aid measures**

General information: Take off contaminated clothing and wash it before reuse.

In case of inhalation: Move victim to fresh air. If you feel unwell, seek medical advice.

In case of swallowing: Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Do not induce vomiting. Seek medical attention.

In case of skin contact: After contact with skin, wash immediately with soap and plenty of water. In case of skin irritation, 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 troubles or persistent symptoms, consult an ophthalmologist.

**Most important symptoms and effects, whether acute or delayed**

No data available

### 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:

Full water jet

### Specific hazards arising from the product

In case of fire may be liberated: metallic oxides, nitrogen oxides (NO<sub>x</sub>), carbon monoxide and carbon dioxide, Phosphorus oxides, hydrogen fluoride.

### Special protective equipment and precautions for fire-fighters

Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.

Additional information:

Keep containers cool with water spray until well after the fire is out.  
Do not allow fire water to penetrate into surface or ground water.

## 6 Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Avoid contact with the substance.  
Wear appropriate protective equipment. Keep unprotected people away. Avoid contact with skin and eyes. Keep away from sources of ignition. Take off contaminated clothing and wash it before reuse. Avoid breathing dust/fume/gas/mist/vapours/spray.

Environmental precautions:

Do not allow to penetrate into soil, waterbodies or drains. If necessary, notify appropriate authorities.

### Methods and material for containment and cleaning up

Dam spills. Take up mechanically, placing in appropriate containers for disposal.

Additional information:

Special danger of slipping by leaking/spilling product.

## 7 Handling and storage

### Precautions for safe handling

Advices on safe handling: Provide adequate ventilation. Avoid contact with the substance. Wear appropriate protective equipment. Avoid contact with skin and eyes. Keep away from sources of ignition. Take off contaminated clothing and wash it before reuse. Avoid breathing dust/fume/gas/mist/vapours/spray.

Precautions against fire and explosion:

Keep away from sources of ignition - No smoking.

### Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep only in the original container in a cool, well-ventilated place.  
Keep container tightly closed and dry. Protect from moisture contamination.

Hints on joint storage:

Do not store together with: oxidizing agents  
Keep away from food, drink and animal feedingstuffs.

## 8 Exposure controls/Personal protection

### Control parameters

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
1314-13-2	Zinc oxide	Canada: Alberta, OEL 15 min	10 mg/m <sup>3</sup>
		Canada: Alberta, OEL 8 hour	2 mg/m <sup>3</sup>
		Canada: BC, OEL STEL	10 mg/m <sup>3</sup> (respirable fraction)
		Canada: BC, OEL TWA	2 mg/m <sup>3</sup> (respirable fraction)
		Canada: Québec, VECD	10 mg/m <sup>3</sup> (respirable fraction)
		Canada: Québec, VEMP	2 mg/m <sup>3</sup> (respirable fraction)

### Appropriate engineering controls

Provide adequate ventilation.  
The use of local exhaust ventilation is recommended.

### Individual protection measures, such as personal protective equipment

Respiratory protection:

Wear a dust mask, in case of excessive dust.  
When vapours form, use respiratory protection.  
Combination filter: Wear half-mask respirator with combination filter for organic vapours and particles.

Hand protection:

Protective gloves according to OSHA Standard - 29 CFR: 1910.138.  
Glove material: chloroprene rubber, neoprene, nitrile rubber, polyethylene, ethylene vinyl alcohol laminate (EVAL), polyvinyl alcohol (PVA), fluoro rubber (Viton)  
Breakthrough time: > 120 min  
Layer thickness: >= 0.35 mm  
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:

Avoid contact with skin and eyes. When using do not eat, drink or smoke. Wash hands before breaks and after work. Avoid breathing dust/fume/gas/mist/vapours/spray. Take off contaminated clothing and wash it before reuse.

### 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	Form: pasty
Colour:	white
Odour:	weak
Odour threshold:	No data available
Melting point and freezing point:	No data available
Boiling point or initial boiling point and boiling range:	No data available
Flammability:	No data available
Lower and upper explosion limit or lower and upper flammability limit:	No data available
Flash point/flash point range:	> 200 °C (c.c.)
Evaporation rate:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH:	No data available
Water solubility:	insoluble
Partition coefficient — n-octanol/water:	No data available
Vapour pressure:	No data available
Density and/or relative density	1.14 g/cm <sup>3</sup>
Vapour density:	No data available
Particle characteristics:	Not applicable

### Additional information

Explosive properties:	not explosive
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## 10 Stability and reactivity

Reactivity:	Refer to subsection "Possibility of hazardous reactions".
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	Reacts with oxidizing agents
Conditions to avoid:	Protect from: heat, humidity
Incompatible materials:	Oxidising agent
Hazardous decomposition products:	Degradation products: fluorinated hydrocarbons

## 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: Lack of data.

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): Lack of data.

Specific target organ toxicity (repeated exposure): Lack of data.

Aspiration hazard: Lack of data.

#### Other information:

Information about Distillates (petroleum), hydrotreated heavy naphthenic:

LD50 Rat, oral: > 5,000 mg/kg (OECD 401)

LD50 Rabbit, dermal: > 5,000 mg/kg (OECD 402)

LC50 Rat, inhalative, dust/mist: > 5.53 mg/L/4h (OECD 403)

Information about Polytetrafluorethylene

LD50 Rat, oral: > 5,000 mg/kg (estimated)

Information about Distillates (petroleum), solvent-dewaxed heavy paraffinic:

LD50 Rat, oral: > 5,000 mg/kg

LD50 Rabbit, dermal: > 2,000 mg/kg

LC50 Rat, inhalative, dust/mist: > 5 mg/L/4h

Information about amines, N-tallow alkyltrimethylenedi-, oleates:

LD50 Rat, oral: > 5,000 mg/kg

LD50 Rat, dermal: > 2,000 mg/kg (read across, OECD 402)

Information about Zinc oxide:

LD50 Rat, oral: > 5,000 mg/kg (OECD 401)

LD50 Rat, dermal: > 2,000 mg/kg (OECD 402)

LC50 Rat, inhalative, dust/mist: > 5.7 mg/L/4h (OECD 403)

## 12 Ecological information

### Ecotoxicity

Aquatic toxicity: Very toxic to aquatic life with long lasting effects.

Information about amines, N-tallow alkyltrimethylenedi-, oleates:

Fish toxicity:

LC50: 0.1 - 1 mg/L

Daphnia toxicity:

EC50 Daphnia magna (Big water flea): > 0.1 - 1 mg/L/48h (read across)

EC10 Daphnia, chronic: > 1 mg/L

Algae toxicity:

EC50 algae: > 0.01 - 0.1 mg/L/72h (read across, OECD 201)

NOEC algae: > 0.01 - 0.1 mg/L/72h (read across, OECD 201)

Information about Zinc oxide:

Fish toxicity:

LC50 Oncorhynchus mykiss: 0.14 - 1.1 mg/L/96h

LC50 Danio rerio (zebrafish): 1 - 10 mg/L/96h

NOEC Danio rerio (zebrafish): >= 0.540 mg/L/32d

Daphnia toxicity:

EC50 Daphnia magna (Big water flea): 1 - 10 mg/L/48h

NOEC Daphnia magna (Big water flea) offspring: 0.04 mg/L/21d

Algae toxicity:

IC50 Selenastrum capricornutum (green algae), growth rate: 0.136 mg/L/72h

### Persistence and degradability

Further details: No data available

### 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: Incinerate as hazardous waste according to applicable local, state, and federal regulations.

#### Package

Recommendation: Waste key number

ASN150104 Metallic packaging.

ASN150102 Plastic packaging.

Dispose of waste according to applicable legislation.

Empty carefully and completely, if possible.

### 14 Transport information

#### UN number

TDG: UN3077

IMDG, IATA-DGR: UN 3077

#### UN proper shipping name

TDG, IMDG, IATA-DGR: UN 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(amines, N-tallow alkyltrimethylenedi-, oleates, zinc oxide)

#### Transport hazard class

TDG: 9

IMDG: Class 9, Subrisk -

IATA-DGR: Class 9



#### Packing group

TDG, IMDG, IATA-DGR: III

#### Environmental hazards

Marine pollutant: yes



#### Special precautions in connection with transport or conveyance either within or outside the premises

#### Canada: Transportation of Dangerous Goods (TDG)

Special Provisions: 16, 99

Explosive limit and limited quantity index: 5 kg

Marine pollutant: P

#### Sea transport (IMDG)

EmS: F-A, S-F

Special Provisions: 274 335 375 966 967 969

Limited quantities: 5 kg

Excepted quantities: E1

Package - Instructions: P002, LP02

Package - Provisions: PP12

IBC - Instructions: IBC08

IBC - Provisions: B3

Tank instructions - IMO: -

Tank instructions - UN: T1, BK2, BK2, BK3

Tank instructions - Provisions: TP33

Stowage and handling: Category A. SW23

Properties and observations: -

Marine pollutant: yes

Segregation group: none



### Air transport (IATA)

Proper shipping name: UN 3077,  
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(amines, N-tallow alkyltrimethylenedi-, oleates, zinc oxide)

Hazard label: Miscellaneous & Environmentally hazardous

Excepted Quantity Code: E1

Passenger and Cargo Aircraft: Ltd.Qty.: Pack.Instr. Y956 - Max. Net Qty/Pkg. 30 kg G

Passenger and Cargo Aircraft: Pack.Instr. 956 - Max. Net Qty/Pkg. 400 kg

Cargo Aircraft only: Pack.Instr. 956 - Max. Net Qty/Pkg. 400 kg

Special Provisions: A97 A158 A179 A197 A215

Emergency Response Guide-Code (ERG): 9L

## 15 Regulatory information

### National regulations - Canada

Distillates (petroleum), hydrotreated heavy naphthenic: DSL: listed

Polytetrafluorethylene: DSL: listed

Distillates (petroleum), solvent-dewaxed heavy paraffinic: DSL: listed

Amines, N-tallow alkyltrimethylenedi-, oleates: DSL: listed

Zinc oxide: DSL: listed

Distillates (petroleum), hydrotreated heavy paraffinic: DSL: listed

### Further regulations, limitations and legal requirements

No data available

## 16 Other information

Revision date: 1/1/2026

Date of first version: 7/4/2016

Reason of change: Changes in section 14: IATA-DGR 2026

### Abbreviations and acronyms:

Aquatic toxicity - acute: Hazardous to the aquatic environment - acute  
 Aquatic toxicity - chronic: Hazardous to the aquatic environment - chronic  
 AS/NZS: Australian Standards/New Zealand Standards  
 Aspiration Toxicity: Aspiration toxicity  
 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  
 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%  
 MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships  
 M-factor: Multiplication factor  
 NOEC: No Observed Effect Concentration  
 OECD: Organisation for Economic Co-operation and Development  
 OSHA: Occupational Safety and Health Administration  
 PBT: Persistent, bioaccumulative and toxic  
 PNEC: Predicted no-effect concentration  
 Skin Irritation: Skin irritation  
 STOT RE: Specific target organ toxicity - repeated exposure  
 TDG: Transportation of Dangerous Goods Regulation in Canada  
 TRGS: Technical Rules for Hazardous Substances  
 UN: United Nations  
 vPvB: Very persistent and very bioaccumulative

### 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.