

1. Product and company identification

Product identifier

Trade name: 633F14 - Molykote DX Paste

This safety data sheet pertains to the following products:

633F14=0.050 = Spezial-Schmiermittel

633F14=1 = Spezial-Schmiermittel

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

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: Form: pasty

Color: white

Odor: weak

Classification: Aquatic toxicity - acute 1. Aquatic toxicity - chronic 2.

Hazard 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.

Regulatory status

This material is not considered hazardous by the WHMIS in Canada.

Hazards not otherwise classified

see section 11: Toxicological information

3. Composition / Information on ingredients

Chemical characterisation: mixture contains inorganic materials, organic compounds

Relevant ingredients:

CAS No.	Designation	Concentration	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.

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

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.
Following skin contact: After contact with skin, wash immediately with soap and plenty of water. In case of skin irritation, 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. In case of troubles or persistent symptoms, consult an ophthalmologist.
After swallowing: Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Do not induce vomiting. Seek medical attention.

Most important symptoms and effects, both acute and delayed

No data available

Information to physician

Treat symptomatically.

5. Fire fighting measures

Flash point/flash point range:

> 200 °C (c.c.)

Auto-ignition temperature: No data available

Suitable extinguishing media:

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

Extinguishing media which must not be used for safety reasons:

Full water jet

Specific hazards arising from the chemical

In case of fire may be liberated: metallic oxides, nitrogen oxides (NO_x), 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:

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/vapors/spray.

Environmental precautions:

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

Methods for clean-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

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/vapors/spray.

Precautions against fire and explosion:

Keep away from sources of ignition - No smoking.

Storage

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

Exposure guidelines

Occupational exposure limit values:

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

Engineering controls

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

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

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/vapors/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

Appearance: Form: pasty
Color: white

Odor:	weak
Odor threshold:	No data available
pH:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flash point/flash point range:	> 200 °C (c.c.)
Evaporation rate:	No data available
Flammability:	No data available
Explosion limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Density:	1.14 g/cm ³
Water solubility:	insoluble
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Thermal decomposition:	No data available
Explosive properties:	not explosive

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
Thermal decomposition:	No data available

11. Toxicological information

Toxicological tests

Toxicological effects:

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

Mobility in soil

No data available

Persistence and degradability

Further details: No data available

Additional ecological information

General information: Do not allow to penetrate into soil, waterbodies or drains.

13. Disposal considerations

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

ADR/RID, IMDG, IATA-DGR:

UN 3077

UN proper shipping name

ADR/RID, IMDG, IATA-DGR:

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

Transport hazard class(es)

ADR/RID:

Class 9, Code: M7

IMDG:

Class 9, Subrisk -

IATA-DGR:

Class 9

Packing group

ADR/RID, IMDG, IATA-DGR:

III

Environmental hazards

Marine pollutant:

yes

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:

UN3077

Shipping name:

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

TDG class:

9

Packing group:

III

Special provisions:

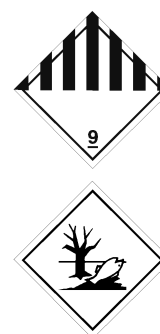
16, 99

Explosive limit and limited quantity index:

5 kg

Marine pollutant:

P



Sea transport (IMDG)

UN number: UN 3077
 Proper shipping name: UN 3077,
 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
 (amines, N-tallow alkyltrimethylenedi-, oleates, zinc oxide)
 Class or division, Subsidiary risk: Class 9, Subrisk -
 Packing Group: III
 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)

UN/ID number: UN 3077
 Proper shipping name: UN 3077,
 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
 (amines, N-tallow alkyltrimethylenedi-, oleates, zinc oxide)
 Class or division, Subsidiary risk: Class 9
 Packing Group: III
 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

16. Other information

Text for labeling:

Contains 35 - 65 % Distillates (petroleum), hydrotreated heavy naphthenic, 2 - 4 % Amines, N-tallow alkyltrimethylenedi-, oleates, 1 - 3 % Zinc oxide, 1 - 3 % Distillates (petroleum), hydrotreated heavy paraffinic.

Hazard rating systems:



NFPA Hazard Rating:

Health: 1 (Slight)

Fire: 1 (Slight)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 1 (Slight)

Flammability: 1 (Slight)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

HEALTH	1
FLAMMABILITY	1
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
 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
 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
 RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
 Skin Irritation: Skin irritation
 STOT RE: Specific target organ toxicity - repeated exposure
 TRGS: Technical Rules for Hazardous Substances
 UN: United Nations
 vPvB: Very persistent and very bioaccumulative
 WHMIS: Workplace Hazardous Materials Information System

Reason of change:

Changes in section 14: IMDG 2025

Date of first version:

7/4/2016

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.