

## 1. Product and company identification

### Product identifier

Trade name: 633F16 - Sliding Paste, White

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

General use: Lubricant  
Reserved for industrial and professional use.

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

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

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

### Emergency phone 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. Hazards identification

### Emergency overview

Appearance: Physical state at 68 °F and 101.3 kPa: solid  
Form: paste  
Color: light brown  
Odor: characteristic  
Classification: Reproductive toxicant - Category 2. Aquatic toxicity - acute - Category 2.  
Aquatic toxicity - chronic - Category 2.

Hazard symbols:



Signal word:

**Warning**

Hazard statements:

Suspected of damaging fertility.

Toxic to aquatic life with long lasting effects.

**Precautionary statements:**

Obtain special instructions before use.  
Avoid release to the environment.  
Wear protective gloves/protective clothing/eye protection.  
IF exposed or concerned: Get medical advice/attention.  
Collect spillage.  
Store locked up.  
Dispose of contents/container to hazardous or special waste collection point.

**Regulatory status**

This material is considered hazardous by the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Hazards not otherwise classified**

Special danger of slipping by leaking/spilling product.  
see section 11: Toxicological information

### 3. Composition / Information on ingredients

Chemical characterization: Base oil

Relevant ingredients:

CAS No.	Designation	Concentration	Classification
CAS 1305-62-0	Calcium hydroxide	20 - 50 %	Skin Irritation - Category 2. Eye Damage - Category 1. Specific Target Organ Toxicity (Single Exposure) - Category 3.
CAS 7446-26-6	Dizinc pyrophosphate	2.5 - 5 %	Aquatic toxicity - acute - Category 1 (M-factor = 1). Aquatic toxicity - chronic - Category 1 (M-factor = 1).
CAS 68411-46-1	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	< 1 %	Reproductive toxicant - Category 2. Aquatic toxicity - chronic - Category 3.
CAS 1314-13-2	Zinc oxide	< 0.25 %	Aquatic toxicity - acute - Category 1 (M-factor = 1). Aquatic toxicity - chronic - Category 1 (M-factor = 1).

Additional information: Information about base oil: Here applies the note L.  
DMSO-extract <3% (IP 346)

### 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.

**In case of inhalation:** Move victim to fresh air. Seek medical treatment in case of troubles.

**Following skin contact:** Remove residues with soap and 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. In case of troubles or persistent symptoms, consult an ophthalmologist.

After swallowing: Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek medical treatment in case of troubles.

### Most important symptoms/effects, acute and delayed

No data available

### Information to physician

Treat symptomatically.

## 5. Fire fighting measures

Flash point/flash point range:

Not applicable

Auto-ignition temperature: No data available

Suitable extinguishing media:

Water spray jet, dry chemical powder, carbon dioxide.

In case of major fire and large quantities: Water with tenside additive, alcohol resistant foam

Extinguishing media which must not be used for safety reasons:

Full water jet

### Specific hazards arising from the chemical

May form dangerous gases and vapors in case of fire.

Furthermore, there may develop: metal oxide smoke, carbon monoxide and carbon dioxide

Protective equipment and precautions for firefighters:

Wear self-contained breathing apparatus and protective clothing to protect skin and eyes.

Additional information:

You have to dispose of contaminated extinguishing water according to the regulations of the authorities.

## 6. Accidental release measures

Personal precautions:

Avoid exposure. Provide adequate ventilation.

Avoid breathing dust/fume/gas/mist/vapors/spray. Wear appropriate protective equipment.

Avoid contact with skin and eyes.

Take off contaminated clothing and wash it before reuse.

Environmental precautions:

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

If necessary, notify appropriate authorities.

Methods for clean-up:

Prevent spread over a wide area (e.g. by containment or oil barriers).

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents) and place in closed containers for disposal.

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.

Avoid breathing dust/fume/gas/mist/vapors/spray. Wear appropriate protective equipment.

Avoid contact with skin and eyes.

Take off contaminated clothing and wash it before reuse.

When using do not eat, drink or smoke. Wash hands before breaks and after work.

Do not put any product-impregnated cleaning rags into your trouser pockets.

Precautions against fire and explosion:

Keep away from sources of ignition - No smoking.

### Storage

Requirements for storerooms and containers:

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

Protect from heat and direct sunlight.

Hints on joint storage:

Keep away from food, drink and animal feedingstuffs. Do not store together with acids/alkalies and oxidation agents.

## 8. Exposure controls / personal protection

### Exposure guidelines

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
	633F16 - Sliding Paste, White	USA: ACGIH: TWA	5 mg/m <sup>3</sup>
			(Oil mist mineral, inhalable fraction)
		USA: IDLH: TWA	2,500 mg/m <sup>3</sup>
		USA: NIOSH: STEL	10 mg/m <sup>3</sup> (Oil mist mineral)
		USA: NIOSH: TWA	5 mg/m <sup>3</sup> (Oil mist mineral)
1305-62-0	Calcium hydroxide	USA: OSHA: TWA	5 mg/m <sup>3</sup> (Oil mist mineral)
		USA: ACGIH: TWA	5 mg/m <sup>3</sup>
		USA: NIOSH: TWA	5 mg/m <sup>3</sup>
		USA: OSHA: TWA	15 mg/m <sup>3</sup> (total dust)
		USA: OSHA: TWA	5 mg/m <sup>3</sup> (respirable fraction)
1314-13-2	Zinc oxide	USA: ACGIH: STEL	10 mg/m <sup>3</sup> (respirable fraction)
		USA: ACGIH: TWA	2 mg/m <sup>3</sup> (respirable fraction)
		USA: IDLH: TWA	500 mg/m <sup>3</sup>
		USA: NIOSH: Ceiling	15 mg/m <sup>3</sup> (Dusts)
		USA: NIOSH: STEL	10 mg/m <sup>3</sup> (Smoke)
		USA: NIOSH: TWA	5 mg/m <sup>3</sup> (Dusts)
		USA: NIOSH: TWA	5 mg/m <sup>3</sup> (Smoke)
		USA: OSHA: TWA	15 mg/m <sup>3</sup> (total dust)
		USA: OSHA: TWA	5 mg/m <sup>3</sup>
			(respirable fraction or Smoke)

### Engineering controls

Provide adequate ventilation, and local exhaust as needed.

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: Nitrile rubber Layer thickness: $\geq 0.38$ 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. 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:	Obtain special instructions before use. Avoid breathing dust/fume/gas/mist/vapors/spray. Wear appropriate protective equipment. Avoid contact with skin and eyes. Take off contaminated clothing and wash it before reuse. When using do not eat, drink or smoke. Wash hands before breaks and after work. Do not put any product-impregnated cleaning rags into your trouser pockets.

### 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 68 °F and 101.3 kPa: solid Form: paste Color: light brown
Odor:	characteristic
Odor threshold:	No data available
pH:	Not applicable
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flash point/flash point range:	Not applicable
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:	at 59 °F: $1.10 \text{ g/cm}^3$
Water solubility:	insoluble
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Thermal decomposition:	No data available
Additional information:	No data available

## 10. Stability and reactivity

Reactivity:	Refer to subsection "Possibility of hazardous reactions".
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	No hazardous reaction when handled and stored according to provisions.
Conditions to avoid:	Keep away from heat sources, sparks and open flames.
Incompatible materials:	Strong oxidizing agents, strong acids, strong bases
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

<p>Toxicological effects:</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>Specific symptoms in animal studies, Rabbit: Not an irritant (OECD 404)</p> <p>Serious eye damage/irritation: Based on available data, the classification criteria are not met.</p> <p>Specific symptoms in animal studies (Rabbit): Not an irritant (OECD 405)</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: Reproductive toxicant - Category 2 = Suspected of damaging fertility.</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>	<p>Other information:</p> <p>Information about Calcium hydroxide (CAS 1305-62-0):</p> <p>LD50 Rat, oral: &gt; 2,000 mg/kg (OECD 425)</p> <p>LD50 Rabbit, dermal: &gt; 2,500 mg/kg (OECD 402)</p> <p>LC50 Rat, inhalative (dust/mist): &gt; 6.04 mg/L/4h (OECD 436)</p>
--	--

## 12. Ecological information

### Ecotoxicity

Aquatic toxicity: Toxic to aquatic life with long lasting effects.

Information about Calcium hydroxide (CAS 1305-62-0):

Fish toxicity:

LC50 Oncorhynchus mykiss: 50.6 mg/L/96h (OECD 203)

Daphnia toxicity:

EC50 Daphnia magna (Big water flea): 49.1 mg/L/48h (OECD 202)

NOEC Crangon septemspinosa: 32 mg/L/14d

Algae toxicity:

ErC50 Pseudokirchneriella subcapitata (green algae): 184.57 mg/L/72h (OECD 201)

NOEC Pseudokirchneriella subcapitata (green algae): 48 mg/L/72h (OECD 201)

Information about Dizinc pyrophosphate (CAS 7446-26-6):

Fish toxicity:

LC50 Danio rerio (zebrafish): 4.5 mg/L/96h (OECD 203)

Daphnia toxicity:

EC50 Daphnia magna (Big water flea): 26 mg/L/48h (OECD 202)

Algae toxicity:

ErC50 Pseudokirchneriella subcapitata (green algae): 0.233 mg/L/72h (OECD 201)

NOEC Pseudokirchneriella subcapitata (green algae): 0.094 mg/L/72h (OECD 201)

Information about Zinc oxide (CAS 1314-13-2):

Fish toxicity:

LC50 Cottus Bairdii: 0.215 mg/L/96h

NOEC: 0.026 - 1.184 mg/L/30d

Daphnia toxicity:

EC50 Daphnia magna (Big water flea): 0.095 mg/L/48h

NOEC: 0.014 - 0.718 mg/L/30d

Algae toxicity:

EC50 Pseudokirchneriella subcapitata (green algae): 0.308 mg/L/72h

NOEC Pseudokirchneriella subcapitata (green algae): 0.024 mg/L/72h

### Mobility in soil

No data available

### Persistence and degradability

Further details: No data available

### Additional ecological information

Volatile organic compounds (VOC):

0 % by weight / 0 g/L

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

## 13. Disposal considerations

### Product

Recommendation: Incinerate according to applicable local, state and federal 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 3077

### UN proper shipping name

ADR/RID, IMDG, IATA-DGR:

UN 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(Zinc salt, inorganic)

### 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

### USA: Department of Transportation (DOT)

Identification number:

UN3077

Proper shipping name:

UN 3077,  
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,  
N.O.S. (Zinc salt, inorganic)

Hazard class or Division:

9

Packing Group:

III

Labels:

9

Symbols:

G

Special Provisions:

8, 146, 335, 384, 441, A112, B54, B120, IB8, IP3, N20, N91,  
T1, TP33

Packaging – Exceptions:

155

Packaging – Non-bulk:

213

Packaging – Bulk:

240

Quantity limitations – Passenger aircraft / rail:

No limit

Quantity limitations – Cargo only:

No limit

Vessel stowage – Location:

A





### Sea transport (IMDG)

UN number: UN 3077  
Proper shipping name: UN 3077,  
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(Zinc salt, inorganic)  
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.  
(Zinc salt, inorganic)  
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 - U.S. Federal Regulations

Calcium hydroxide:	TSCA Inventory: listed NIOSH Recommendations: Occupational Health Guideline: 0092
Dizinc pyrophosphate:	TSCA Inventory: listed
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:	TSCA Inventory: listed; UVCB
Zinc oxide:	TSCA Inventory: listed NIOSH Recommendations: Occupational Health Guideline: 0675*

## National regulations - U.S. State Regulations

No data available

## 16. Other information

Text for labeling:

Contains 20 - 50 % Calcium hydroxide, 2.5 - 5 % Dizinc pyrophosphate, < 1 % Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene, < 0.25 % Zinc oxide.

Hazard rating systems:



NFPA Hazard Rating:

Health: 2 (Moderate)

Fire: 1 (Slight)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 2 (Moderate) - Chronic effects

Flammability: 1 (Slight)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

HEALTH	*	2
FLAMMABILITY		1
PHYSICAL HAZARD		0
X		

Classification procedure:

Physical hazards, health hazards: on basis of test data expert judgement and weight of evidence determination, bridging principle "substantially similar mixtures"

Environmental hazards: calculation method

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  
 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  
 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%  
 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  
 OEL: Occupational Exposure Limit Value  
 OSHA: Occupational Safety and Health Administration  
 PBT: Persistent, bioaccumulative and toxic  
 PNEC: Predicted no-effect concentration  
 Reproductive toxicant: 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

Reason of change: Changes in section 2: Classification, labelling  
Changes in section 3: Composition/information on ingredients  
Changes in section 12: Ecological information  
Changes in section 15: Regulatory information  
General revision

Date of first version: 12/9/2020

**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.