

**2/4/xRx - Stainless Steel**

Material number 002/4/xRx

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**1. Product and company identification****Product identifier**

Trade name: 2/4/xRx - Stainless Steel

**Relevant identified uses of the substance or mixture and uses advised against**General use: Refined steel-Article for orthopedic procedures  
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

Dept. responsible for information:

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

Additional information: This safety data sheet pertains to the following products:

2R3 - Tube Adapter  
2R45 - Adjustment Tube Adaptor  
2R45=S - Tube Adapter  
2R76, R77 - Internal Tube Adaptor  
4R39 - Torsion Adaptor  
7U2, 7U5, 7U10 - Orthopedic Steel Knee Joint Bars, medium duty  
7U27, 7U30, 7U32, 7U33, 7U42 - Stainless Steel Knee Joint Bars, light duty  
7U43 - Orthopedic Steel Knee Joint Bars, light duty  
7U46, 7U53, 7U54 - Stainless Steel Knee Joint Bars, light duty  
16X4 - Elbow Joints  
16X12, 16X13 - Elbow Joint Set With Draw Lock  
16X14 - Elbow Joint Set Without Lock  
17B5, 17B7, 17B87 - Lower Side Bar  
17B4, 17B6, 17B86 - Upper Side Bar  
17B38, 17B40 - Stainless Steel System Side Bar Set  
17B84 - Stainless Steel System Rounded Side Bar Set  
17B95, 17B96 - Stainless Steel Knee Joint With Wedge Lock and Pull-Release Cable  
17H28, 17H29 - Stainless Steel Hip Joint For Children  
17K29 - Stainless Steel Knee Joints For Children  
17K32 - Stainless Steel Limited Motion Knee Joints For Children  
17K33 - Stainless Steel Free-Motion Offset Knee Joints For Children  
17K34 - Stainless Steel Knee Joints With Swiss Lock for Children  
17M10-S, 17M11 - Posterior Free Joints (Steel)  
17M20=16, 17M20=20 - Option Ring Lock - Stainless Steel  
17M20=C - Duchenne Stirrup  
17M30=13, 17M31=13 - Bale Lock  
17M100 - Push Lock Hinge - Stainless Steel**Emergency phone number****CHEMTREC, Telephone: +1 (800) 424-9300**

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**2. Hazards identification****Emergency overview**

Appearance: Form: solid, in pieces  
Color: silver gray  
Odor: odorless  
Classification: This substance is classified as not hazardous.

**Regulatory status**

This material is not considered hazardous by the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200) and SIMDUT in Canada.

**Hazards not otherwise classified**

Processing, e.g. by cutting, sawing or grinding, can produce particles and dust. For risks which have to be observed thereby, see chapter 7: Handling, chapter 8: Exposure controls / personal protection and chapter 11: Toxicology.  
see section 11: Toxicological information

**3. Composition / Information on ingredients**

Chemical characterization: Article of steel, stainless

**4. First aid measures**

In case of inhalation: In case of troubles after inhalation of dust:  
Move victim to fresh air. Seek medical attention.

Following skin contact: Wash with plenty of water.

After eye contact: Refined steel-dust:  
With eyelids open, wash out eyes for several minutes under flowing water. In case of troubles or persistent symptoms, consult an ophthalmologist.

After swallowing: Swallowing is not regarded as a possible way of exposition.  
Refined steel-dust:  
Rinse mouth and drink large quantities of water. Seek medical attention if problems persist.

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

In case of eye contact / in case of inhalation, Dust: May cause irritations.  
Lung damage is possible in a chronic situation.

**Information to physician**

Treat symptomatically.

**5. Fire fighting measures**

Flash point/flash point range: not combustible  
Auto-ignition temperature: no data available  
Suitable extinguishing media: Use extinguishing material as appropriate for the surrounding area.

**Specific hazards arising from the chemical**

Product is non-combustible.

**6. Accidental release measures**

- Personal precautions: Avoid generation of dust. Provide adequate ventilation.  
 In the case of the formation of dust: Wear protective equipment. Do not breathe dust.  
 Avoid contact with skin and eyes.
- Environmental precautions: Discharge into the environment must be avoided.
- Methods for clean-up: Metal parts/dust:  
 Take up mechanically, placing in appropriate containers for disposal.

**7. Handling and storage**

**Handling**

Advices on safe handling: For mechanical processing:  
 Avoid respiration of swarf. Wear protective equipment.  
 Provide adequate ventilation.

**Storage**

Requirements for storerooms and containers:  
 Store in a dry place.

**8. Exposure controls / personal protection**

**Exposure guidelines**

Occupational exposure limit values:

Type	Limit value
USA: ACGIH: TWA	10 mg/m <sup>3</sup>
USA: ACGIH: TWA	3 mg/m <sup>3</sup>
USA: OSHA: TWA	15 mg/m <sup>3</sup>
USA: OSHA: TWA	5 mg/m <sup>3</sup>

**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: For mechanical processing:  
 Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010 or face protection shield.
- Skin protection: For mechanical processing:  
 Wear suitable protective clothing.  
 For mechanical processing:  
 Protective gloves according to OSHA Standard - 29 CFR: 1910.138.  
 Glove material: nitrile rubber-Breakthrough time: 480 min.

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Respiratory protection: For mechanical processing:  
Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded. Particulates filter P2 according to OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2.

General hygiene considerations:  
For mechanical processing:  
Do not breathe dust.  
Wash hands before breaks and after work.  
Provide a conveniently located eye rinse station.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Appearance:	Form: solid, in pieces Color: silver gray
Odor:	odorless
Odor threshold:	no data available
pH value:	no data available
Melting point/freezing point:	no data available
Initial boiling point and boiling range:	no data available
Flash point/flash point range:	not combustible
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:	no data available
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:	no data available
Chemical stability:	Product is stable under normal storage conditions.
Possibility of hazardous reactions	No hazardous reaction when handled and stored according to provisions.
Conditions to avoid:	no data available
Incompatible materials:	no data available
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.
- 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.

### Symptoms

In case of inhalation: Dust: May cause irritations.  
 Lung damage is possible in a chronic situation.  
 After eye contact: Dust: May cause irritations.

### General remarks

For mechanical processing:  
 Formation of potentially hazardous splinters.  
 Refined steel-dust: May cause irritations.

## 12. Ecological information

### Ecotoxicity

Further details: no data available

### Mobility in soil

no data available

### Persistence and degradability

Further details: Methods for the determination of biodegradability are not applicable to inorganic substances.

### Additional ecological information

General information: Discharge into the environment must be avoided.

## 13. Disposal considerations

### Product

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

**14. Transport information**

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

Proper shipping name: Not restricted

**Sea transport (IMDG)**

Proper shipping name: Not restricted  
 Marine pollutant: no

**Air transport (IATA)**

Proper shipping name: Not restricted

**Further information**

No dangerous good in sense of these transport regulations.

**15. Regulatory information**

**National regulations - U.S. Federal Regulations**

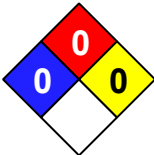
formation of Dust and glass-fibers, NFPA/HMIS: H1  
 Refer to 29 CFR Part 1910 subpart q - Welding, Cutting, Brazing 1910.252.  
 TSCA: listed

**National regulations - Great Britain**

Hazchem-Code: -

**16. Other information**

Hazard rating systems:



NFPA Hazard Rating:  
 Health: 0 (Minimal)  
 Fire: 0 (Minimal)  
 Reactivity: 0 (Minimal)

HMIS Version III Rating:  
 Health: 0 (Minimal)  
 Flammability: 0 (Minimal)  
 Physical Hazard: 0 (Minimal)  
 Personal Protection: X = Consult your supervisor

HEALTH	0
FLAMMABILITY	0
PHYSICAL HAZARD	0
	X

Reason of change: Changes in section 1: Address  
 Date of first version: 10/28/2008

**Department issuing data sheet**

Contact person: see section 1: Dept. 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.