

1. Identification

Product identifier

Trade name: 2/4/xRx - Stainless Steel

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

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
 Zip 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 telephone number

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

2. Hazard identification

Classification of the substance or mixture

Article not subject to hazard labelling or classification.

Label elements

not applicable

Other hazards

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

3. Composition/information on ingredients

Substances

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: Ingestion is not considered a possible route of exposure.

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

Suitable (and unsuitable) extinguishing media

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, protective equipment and emergency procedures

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 and material for containment and cleaning up

Methods for clean-up:

Metal parts/dust:

Take up mechanically, placing in appropriate containers for disposal.

7. Handling and storage

Precautions for safe handling

Advices on safe handling: For mechanical processing:

Avoid respiration of swarf. Wear appropriate protective equipment.

Provide adequate ventilation.

Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Store in a dry place.

8. Exposure controls/personal protection

Control parameters

Occupational exposure limit values:

Type	Limit value
USA: ACGIH: TWA	10 mg/m ³ (Dust limit value, inhalable fraction)
USA: ACGIH: TWA	3 mg/m ³ (Dust limit value, respirable fraction)
USA: OSHA: TWA	15 mg/m ³ (Dust limit value, total dust)
USA: OSHA: TWA	5 mg/m ³ (Dust limit value, respirable fraction)

Appropriate engineering controls

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

Personal protection equipment (PPE)

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.
Hand protection:	For mechanical processing: Protective gloves according to OSHA Standard - 29 CFR: 1910.138. Glove material: nitrile rubber-Breakthrough time: 480 min.
Eye protection:	For mechanical processing: Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010 or face protection shield.
Body protection:	For mechanical processing: Wear suitable protective clothing.
General hygiene considerations:	For mechanical processing: Do not breathe dust. Wash hands before breaks and after work. Provide a conveniently located eye rinse station.

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	Form: solid, in pieces
Color:	silver gray
Odor:	odorless
Odor threshold:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flammability:	No data available
Explosion limits:	No data available

Flash point/flash point range:	not combustible
Evaporation rate:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH:	No data available
Viscosity:	No data available
Water solubility:	insoluble
Partition coefficient: n-octanol/water:	No data available
Vapor pressure:	No data available
Density:	No data available
Vapor density:	No data available
Particle characteristics:	Not applicable

Additional information

Additional information:	No data available
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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

11. Toxicological information

Information on toxicological effects

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.

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

Persistence and degradability

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

Bioaccumulative potential

Partition coefficient: n-octanol/water:

No data available

Mobility in soil

No data available

Other adverse effects

General information: Discharge into the environment must be avoided.

13. Disposal considerations

Waste treatment methods

Product

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

14. Transport information

UN number

DOT, IMDG, IATA-DGR: not applicable

UN proper shipping name

DOT, IMDG, IATA-DGR: Not restricted

Transport hazard class(es)

DOT, IMDG, IATA-DGR: not applicable

Packing group

DOT, IMDG, IATA-DGR: not applicable

Environmental hazards

Marine pollutant: no

Transport in bulk according to IMO instruments

No data available

Special precautions for user

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

This product is an article as defined by TSCA regulations, and is exempt from TSCA inventory listing requirements.

National regulations - U.S. State Regulations

No data available

Further regulations, limitations and legal requirements

No data available

16. Other information

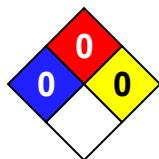
Revision date: 12/17/2025

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Reason of change: General revision: Safety Data Sheet according to Hazardous Products Regulations (HPR) 2022

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

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

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
 EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods
 EN: European Standard
 EQ: Excepted quantities
 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
 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
 TLV: Threshold Limit Value
 TRGS: Technical Rules for Hazardous Substances
 TSCA: Toxic Substance Control Act
 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.