

1. Product and company identification

Product identifier

Trade name: SLx/xRx - Aluminium - Articles

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

General use: Aluminium-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:

13R*: Tube
17B*: Covered Lock Knee Joints, Side bar set, Upper side bar, Lower side bar
17M10-A: Posterior Free Joints (Aluminium)
17M21: Aluminium Ring Lock
2R41=1/2: Tube Adaptor
2R48: Tube Adaptor, angled
2R49, 2R50: Tube Adaptor
2R104, 2R105, 2R106: Modular Transtibial Kit
2R226, 2R229: SACH Shin Kit
3R106: Tube Adapter
4R121=30, 4R121=34: Delta Twist Shock absorber
7E5: Manual Lock Single Axis Hip Joint
7E7: Modular Single Axis Hip Joint With Stride Control (Aluminium)
17M10: Posterior Free Joints (Aluminium)
SL=AK-32, SL=AK-34, SL=AK-35, SL=AK-36, SL=AK-37: TF Fitting
SL=LPA-30-XL: TF Fitting, Oval
SL=LPA-335-XL: Pylon Extension Fitting/Distance Sleeve
SL=LPA-35: Distance Sleeve
SL=LPA-35: Pylon Extension Fitting/Distance Sleeve
SL=LPA-35-L: Pylon Extension Fitting/Distance Sleeve
SL=LPA-B-30, SL=LPA-B-34: TF Fitting
SL=RPA-400-30-XL: TF Fitting
SL=RPA-400-34: Distance Sleeve
SL=RPA-400-35, SL=RPA-400-35-L, SL=RPA-400-35-XL: Pylon Extension Fitting/Distance Sleeve

Emergency phone number

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

2. Hazards identification

Emergency overview

Appearance: Form: solid, metal parts
Color: silver gray
Odor: odorless
Classification: This material 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.

Aluminium-dust:

Combustible. Danger of dust explosion. Danger of spontaneous combustion.
see section 11: Toxicological information

3. Composition / Information on ingredients

Chemical characterization: Article of Aluminium-Alloy

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: Aluminium-dust: Remove residues with water.
Change contaminated clothing.

After eye contact: Aluminium-dust: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. In case of troubles or persistent symptoms, consult an ophthalmologist.

After swallowing: Metal parts: Swallowing is not regarded as a possible way of exposition.
Aluminium-dust: If person is clearly conscious, have them drink two glasses of water to dilute ingested material. Seek medical attention.

Most important symptoms/effects, acute and delayed

Aluminium-dust: May cause irritations.
After inhalation of high quantities metallic fume fever may appear.
Lung damage is possible in a chronic situation.

Information to physician

Treat symptomatically.

5. Fire fighting measures

Flash point/flash point range:

no data available

Auto-ignition temperature: no data available

Suitable extinguishing media:

Product is non-combustible. Extinguishing materials should therefore be selected according to surroundings.

Aluminium-dust: Special extinguishing powder for metals.

In case of fire, use dry sand or fire extinguisher of fire class D. Never use water.

Extinguishing media which must not be used for safety reasons:

Aluminium-dust: Never extinguish with a halon or carbon dioxide extinguisher or water.

Specific hazards arising from the chemical

Aluminium-dust:

Combustible. Danger of dust explosion. Danger of spontaneous combustion.

Aluminium, molten:

After contact with water: Danger of explosion!

6. Accidental release measures

Personal precautions: Avoid generation of dust.

In the case of the formation of dust: Wear protective equipment. Do not breathe dust.

Environmental precautions:

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

Aluminium-dust: Do not empty into drains. (Danger of explosion)

Methods for clean-up: Metal parts/dust:

Take up mechanically, placing in appropriate containers for disposal.

Final cleaning. Avoid generation of dust.

Additional information: Aluminium-dust: Eliminate all ignition sources if safe to do so.

7. Handling and storage

Handling

Advices on safe handling: For mechanical processing:

Avoid respiration of swarf. Wear protective equipment.

Provide adequate ventilation. Keep workplace dry.

If necessary: Use local exhaust.

Precautions against fire and explosion:

For mechanical processing: Avoid generation of dust.

Take precautionary measures against static discharges. Keep away from sources of ignition.

Storage

Requirements for storerooms and containers:

Keep container dry. Store at room temperature.

8. Exposure controls / personal protection

Exposure guidelines

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
7429-90-5	SLx/xRx - Aluminium - Articles	USA: ACGIH: TWA	10 mg/m ³
		USA: ACGIH: TWA	3 mg/m ³
	Aluminium	USA: OSHA: TWA	15 mg/m ³
		USA: OSHA: TWA	5 mg/m ³
	Aluminium	NIOSH: Ceiling	5 mg/m ³
		USA: ACGIH: TWA	1 mg/m ³
		USA: NIOSH: TWA	10 mg/m ³
		USA: NIOSH: TWA	5 mg/m ³
		USA: OSHA: TWA	15 mg/m ³
		USA: OSHA: TWA	5 mg/m ³

Engineering controls

Provide adequate ventilation.

If necessary: Use local exhaust.

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 ANSI Z87.1-2003. 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. Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
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, metal parts Color: silver gray
Odor:	odorless
Odor threshold:	no data available
pH value:	no data available

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Melting point/freezing point:	> 899.6 °F
Initial boiling point and boiling range:	no data available
Flash point/flash point range:	no data available
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 68 °F: $\geq 2.7 \text{ g/cm}^3$
Solubility:	at 68 °F: soluble in mineral acids
Water solubility:	at 68 °F: insoluble
Partition coefficient: n-octanol/water:	no data available
Auto-ignition temperature:	no data available
Thermal decomposition:	no data available
Ignition temperature:	Aluminium-dust: approx. 752 °F

10. Stability and reactivity

Reactivity:	no data available
Chemical stability:	Product is stable under normal storage conditions.
Possibility of hazardous reactions	Aluminium-dust: Combustible. Danger of dust explosion. Danger of spontaneous combustion. Aluminium, molten: After contact with water: Danger of explosion! Aluminium-dust/water: Danger of bursting of closed cans.
Conditions to avoid:	For mechanical processing: Keep away from sources of ignition. Protect from moisture contamination. Take precautionary measures against static discharges.
Incompatible materials:	For mechanical processing: alcohols, alcali hydroxide, alkali salts, ammonium compounds, halogens, halogenated hydrocarbons, alkalis, nitrates, oxidizing agents, acids, sulfate, sulfides, water. Aluminium-dust: Reacts with water or steam liberating hydrogen and heat.
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: Aluminium-dust: May cause irritations.
 After inhalation of high quantities metallic fume fever may appear.
 Lung damage is possible in a chronic situation.
 After eye contact: Aluminium-dust: mild irritant

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

13. Disposal considerations

Product

Recommendation: Recycling. Refer to manufacturer/supplier for information on recovery/recycling.

Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation.
Completely emptied packages can be recycled.

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

Product: Refer to 29 CFR Part 1910 subpart q - Welding, Cutting, Brazing 1910.252.

Aluminium: TSCA Inventory: listed
TSCA HPVC: not listed
Other Environmental Laws:
SARA Title III Section 313, Toxic Release: Conc. 1.0% / Threshold Standard
NIOSH Recommendations:
Occupational Health Guideline: 0022

National regulations - Great Britain

Hazchem-Code: -

16. Other information

Hazard rating systems:



NFPA Hazard Rating:

Health: 1 (Slight)

Fire: 0 (Minimal)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 1 (Slight)

Flammability: 0 (Minimal)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

Literature: 29 CFR Part 1910 subpart q - Welding, Cutting, Brazing 1910.252

Reason of change: Changes in section 1: Address

Date of first version: 9/10/2008

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
	X

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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.