RMO® Europe

rocky mountain® orthodontics

Section 1. MATERIAL INDENTIFICATION

MANUFACTURER: RMO Europe
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67411 ILLKIRCH

Product Grade/Name:
Nickel Base Alloy Trade Name and Synonyms-**Nitinol**

Section 2. HAZARDOUS INGREDIENTS

MATERIAL	% (RANGE)	ACGIH-TLV	CAS #
Nickel (Ni)	55.0	1.0 mg/m3	7440020
Titanium (Ti)**	45.0	10.0 mg/m3	7440326

* TLV's in accordance with ACGIH levels.
** Is considered a nuisance and covered under ACGIH nuisance dust standard level of 10mg/m3, total dust 8 HR TWA.

Section 3. PHYSICAL HAZARDS

Boiling Point (F°)	N/A
Vapor Pressure	N/A
Vapor Density (Air = 1)	N/A
Solubility in Water	Insoluble
Appearance and odor	Metallic gray in color, no odor.
Specific Gravity (H2O = 1)	6.9
Percent Volatile by Volume	N/A
Evaporation Rate	N/A
Melting Point (F°)	2500-2700

Section 4. FIRE & EXPLOSION DATA

Flash Point (F°)	N/A
Flammable Limits	N/A
Extinguishing Media	Use dry powder extinguishing agent
Fire & Explosion hazard	Metal powder dispersed in air may cause fire and Explosion hazard.

Explosion hazard, good housekeeping must be maintained. Molten metal can ignite combustibles.

Section 5. HEALTH HAZARD

Sensitization- Prolonged or repeated contact may cause shin irritation or other allergic reactions to sensitive individuals.

Effects of Overexposure- Inhalation is most serious. Prolonged excessive exposure to dust, mist and fumes of this alloy may contribute to chronic respiratory ailments.

Possible Cancer Hazard- According to OSHA, nickel is treated as a potential carcinogen for hazard communication purposed because it is included in the NTP and IARC lists on potential human carcinogens. Some scientific studies have found an excess incidence of cancer of the respiratory tract among workers involved in certain step of certain nickel refining processes. However, several reliable studies of workers exposed to various forms of nickel and its compounds have not shown any increased risk of cancer.

Primary Routes of Entry- Inhalation of dusts or fumes.

Permissible Occupational Exposure- (as established by OSHA PEL and ACGIH TLV) ***See Section 3***

Emergency First Aid- Eye Contact: Flush eyes with water.

Section 6. REACTIVITY DATA

Stability: Stable

Cautions: Contact with mineral acids will release hydrogen – a dangerous gas.

**Under certain specific conditions, exposure to carbon monoxide may produce nickel carbonyl, a highly toxic gas.

Incompatibility (Material to Avoid): N/A

Hazardous Decomposition Products: None

Hazardous Polymerization: Will Not Occur

Conditions to Avoid: None

Section 7. SPILL OR LEAK PROCEDURES

Steps to be taken if leaked or spilled- Pick up powder or dust spills by methods such as vacuuming or wet mopping- prevent dusty conditions.

Waste Disposal Method- Dispose of waste in accordance with local, state or federal regulations.

Section 8. SPECIAL PROTECTION INFORMATION

Ventilation: If solid forms of nickel are converted to dusts or fumes, working environment should be maintained below the recommended exposure limits (Section 2) by use of appropriate ventilation.

Respiratory: If solid nickel forms are converted in manufacturing process to dust or fumes and ventilation is not adequate to maintain nickel concentrations below recommended exposure limits (Section 2), then respiratory protection should be used. NIOSH approved respirators according to OSHA CFR 1919.134 are recommended.

Skin: Use of protective gloves (leather or rubber) are recommended.

Eyes: Use safety glasses.

NOTE: While the information and recommendations set forth on this data sheet are believed to be accurate as received from our suppliers, Ultimate Wireforms makes no warranty with respect thereto and disclaims all liability from reliance thereon.