| PRODUCTS RELATED TO THIS MSDS | |
|---|---|
| **PRODUCT** | **MATERIAL** |
| TURRET | AISI 302 + ABS |
| BAND PUSHER | AISI 302 + ABS |
| SHILLIDAY RPE PLASTIC KEY | AISI 302 + ABS |

## IDENTIFICATION OF THE MATERIAL

Raw material used is stainless steel alloy **(Aisi 302 – ABS)**.

## CHEMICAL COMPOSITION

**ABS** – Copolymerized Thermoplastic (Acrylonitrile, Butadiene, Styrene)

| **Aisi 302 Element / Weight** (%) | | | | | |
|---|---|---|---|---|---|
| **Fe** | **C** | **SI** | **Mn** | **P** | **S** |
| Balance | ≤0.12 | < 1.00 | < 2.00 | <0.045 | < 0.03 |
| **Cr** | **Ni** | | | | |
| 17 ~ 19 | 8 ~1 0 | | | | |

## PHYSICAL - CHEMICAL PROPERTIES AND FLAMMABILITY

| | | | |
|---|---|---|---|
| Appearance | Solid | Colour | Silver-grey |
| Odour | Odourless | Safety Data | None |
| Ph-value | None | | |
| *Change of status* | | | |
| Bowling point | n.a. | Melting point | 1400 °C (200°C for ABS) |
| Combustion rate | n.a. | Flammability | n.a. |
| Ignition temperature | n.a. | Auto-ignition temperature | n.a. (300°C for ABS) |
| Comburent capability | n.a. | Explosion limit | n.a. |
| Vapour pressure | n.a. | Density at 20° | 7,5 – 8.5 g/cm$^3$ (1.050 g/cm$^3$ for ABS) |
| *Solubility and scattering features* | | | |
| Soluble in water | Insoluble | Soluble in fat | Insoluble |
| Scattering coefficient | None | | |

## REACTIVITY

**Stability and reactivity**: stable and not reactive

⇨

## HAZARDS IDENTIFICATION

**Information on toxicity**: no toxic effects caused by the material in massive form or during the usual orthodontic process have been noticed.

**Possible hazards during the working process**:

⇨ **Effects of overexposure**: inhalation is very serious. A prolonged excessive exposition to dust, mist and fumes of this alloy may contribute to chronic respiratory ailments.

⇨ **Possible cancer hazard**: Nickel is treated as a potential agent, being included in the NTP and IARC lists. Some scientific studies have found an excessive incidence of cancer of the respiratory tract among workers involved in certain steps of nickel refining processes. However, several studies on workers exposed to various forms of nickel and its compounds have not shown any increased risk of cancer.

⇨ **Primary routes of entry**: inhalation of dust and fumes.

According to the Directive 67/548/EEC all products with a minimum Nickel content of 1% are classified in the same way as suspect carcinogen (category 3) and irritating for skin. Products which these sheets refer to, have form of massive metal alloy, therefore nickel cannot develop as possible hazardous material. No toxic effects caused by the material in massive form or during the normal orthodontic practices have been noticed. A prolonged and frequent contact may cause skin irritation and other allergic reactions in subjects sensitive to nickel.