

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Self-ligating Brackets
Company Name : TOMY Incorporated
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2. HAZARDS IDENTIFICATION

GHS: N/A
Hazard: A metal allergy may occur depending on the individual's susceptibility.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Components	wt %	CAS No.	OSHA PEL mg/m ³	ACGIH TLV mg/m ³
Bracket body & Hook / Post				
Manganese	0 ~ 5	7439-96-5	5 mg/m ³ TWA	0.2 mg/m ³ TWA (respirable fraction) 0.1 mg/m ³ TWA (inhalable fraction)
Nickel	5 ~ 15	7440-02-0	1 mg/m ³ TWA	1.5 mg/m ³ TWA (inhalable fraction)
Chromium	10 ~ 20	7440-47-3	0.5 mg/m ³ TWA	0.5 mg/m ³ TWA
Copper	0 ~ 10	7440-50-8	10 mg/m ³ TWA (dust & mist) 0.1 mg/m ³ TWA (fume)	10 mg/m ³ TWA (dust & mist) 0.2 mg/m ³ TWA (fume)
Niobium	0 ~ 5	7440-03-1	N/A	N/A
Iron	Bal.	7439-89-6	10 mg/m ³ TWA (as fume of Iron oxide)	5 mg/m ³ TWA (as respirable fraction of Iron oxide)
Clip				
Manganese	0 ~ 5	7439-96-5	5 mg/m ³ TWA	0.2 mg/m ³ TWA (respirable fraction) 0.1 mg/m ³ TWA (inhalable fraction)
Nickel	20 ~ 50	7440-02-0	1 mg/m ³ TWA	1.5 mg/m ³ TWA (inhalable fraction)
Chromium	10 ~ 30	7440-47-3	0.5 mg/m ³ TWA	0.5 mg/m ³ TWA
Molybdenum	5 ~ 20	7439-98-7	15 mg/m ³ TWA (total dust)	10 mg/m ³ TWA (inhalable fraction) 3 mg/m ³ TWA (respirable fraction)
Niobium	0 ~ 5	7440-03-1	N/A	N/A
Titanium	0 ~ 5	7440-32-6	15 mg/m ³ TWA (total dust of Titanium dioxide)	10 mg/m ³ TWA (total dust of Titanium dioxide)
Iron	0 ~ 5	7439-89-6	10 mg/m ³ TWA (as fume of Iron oxide)	5 mg/m ³ TWA (as respirable fraction of Iron oxide)
Cobalt	Bal.	7440-48-4	0.1 mg/m ³ TWA (dust and fume)	0.02 mg/m ³ TWA (dust and fume)
Bonding base				
Manganese	0 ~ 5	7439-96-5	5 mg/m ³ TWA	0.2 mg/m ³ TWA (respirable fraction) 0.1 mg/m ³ TWA (inhalable fraction)
Nickel	5 ~ 15	7440-02-0	1 mg/m ³ TWA	1.5 mg/m ³ TWA (inhalable fraction)
Chromium	10 ~ 20	7440-47-3	0.5 mg/m ³ TWA	0.5 mg/m ³ TWA
Molybdenum	0 ~ 5	7439-98-7	15 mg/m ³ TWA (total dust)	10 mg/m ³ TWA (inhalable fraction) 3 mg/m ³ TWA (respirable fraction)
Iron	Bal.	7439-89-6	10 mg/m ³ TWA (as fume of Iron oxide)	5 mg/m ³ TWA (as respirable fraction of Iron oxide)

Components	wt %	CAS No.	OSHA PEL mg/m ³	ACGIH TLV mg/m ³
Welding flange				
Manganese	0 ~ 5	7439-96-5	5 mg/m ³ TWA	0.2 mg/m ³ TWA (respirable fraction) 0.1 mg/m ³ TWA (inhalable fraction)
Nickel	5 ~ 15	7440-02-0	1 mg/m ³ TWA	1.5 mg/m ³ TWA (inhalable fraction)
Chromium	10 ~ 25	7440-47-3	0.5 mg/m ³ TWA	0.5 mg/m ³ TWA
Iron	Bal.	7439-89-6	10 mg/m ³ TWA (as fume of Iron oxide)	5 mg/m ³ TWA (as respirable fraction of Iron oxide)
Coating				
Gold	0 ~ 100	7440-57-5	N/A	N/A
Rhodium	0 ~ 100	7440-16-6	0.1 mg/m ³ TWA (as metal fume)	1 mg/m ³ TWA (as metal fume)

4. FIRST-AID MEASURES

- Eye contact:** Flush with large quantities of water, holding the eyelids apart to assure that the material is washed out. Get medical attention if irritation persists.
- Inhalation:** If irritation or other symptoms develop, remove to fresh air. Get medical attention if symptoms persist.
- Ingestion:** When swallowed this product, seek immediate medical attention.
- Skin contact:** This product should not be used for patients with an identified allergy to nickel and/or other metals and seek immediate medical attention if symptoms persist.

5. FIRE-FIGHTING MEASURES

- This product is nonflammable, but packaging material for this product is combustible.
- Extinguishing Media:** N/A
- Protection and firefighting procedures:** All personnel engaged in firefighting must use appropriate protective equipment.

6. ACCIDENTAL RELEASE MEASURES

N/A

7. HANDLING AND STORAGE

- Handling:** N/A
- Storage:** Store this product with identification not to mix the other products, and keep away from dust and moisture.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

- Ventilation:** Adequate ventilation practice
- Protective equipment commonly used:**
- Eye protection: Safety glasses, safety goggles
- Hand protection: Protective gloves (made of rubber, vinyl, polyethylene and so on)
- Respiratory protection: Dust respirator (in case of dust occurrence)

9. PHYSICAL AND CHEMICAL PROPERTIES

- Normal physical state:** Solid
- Color:** White silver
- Odor:** Odorless
- Density:** N/A

Melting point: N/A
Solubility in water: Insoluble

10. STABILITY AND REACTIVITY

Stability: This product is considered a stable material under normal storage and handling conditions.
Condition to avoid: N/A
Materials to avoid: N/A
Hazardous products produced during decomposition: None known.

11. TOXICOLOGICAL INFORMATION

N/A

12. ECOLOGICAL INFORMATION

N/A

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with local regulations.

14. TRANSPORT INFORMATION

Road transportation: Not classified.
Sea transportation: Not classified.
Air transportation: Not classified.

15. REGULATORY INFORMATION

N/A

16. OTHER INFORMATION

This SDS was prepared in accordance with the requirements of ISO 11014 and to be used only for this product. The information contained in the SDS is believed to be valid and accurate. However, Tomy Inc. makes no warranty, either expressed or implied, as to the completeness of information in all possible condition.
