



# TCS Carbide Burs /

Item # 50251G-01, 50C25-01, 50C261-01, 50C79-01, 50G79-01

## Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Friday, May 15, 2015 / Rules and Regulations

Revision date: 05/15/2015 Version: 1.0

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product name : TCS Carbide Burs  
Product form : Metal  
Other means of identification : Grinding tools

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Abrasive materials used for grinding removable dental appliances

#### 1.3. Details of the supplier of the safety data sheet

Thermoplastic Comfort Systems, Inc  
2619 Lime Ave.  
Signal Hill, CA 90755  
(562)-426-2970

#### 1.4. Emergency telephone number

No additional information available

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

Not classified

#### 2.2. Label elements

##### GHS-US labelling

No labelling applicable

#### 2.3. Other hazards

No additional information available

#### 2.4. Unknown acute toxicity (GHS-US)

No data available

### SECTION 3: Composition/information on ingredients

#### 3.1. Composition

Name	Product identifier	%
Titanium Carbide	12070-08-5	45-65
Titanium Nitride	25583-20-4	45-65
Nickel	7440-02-0	5-20
Molybdenum	7439-98-7	15-35
Cobalt	7440-48-4	0-20

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures after ingestion : If dust is swallowed seek medical attention.  
First-aid measures after inhalation : If overexposed to dust, remove victim to fresh air and get medical attention.  
First-aid measures after eye contact : IF IN EYES: Immediately flush with plenty of water for at least 5 minutes, holding eyelids open. Remove contact lenses if present and easy to do so. Continue rinsing. Obtain immediate medical attention for foreign body in eye.  
First-aid measures after skin contact : Wash dust from skin with soap and water. Launder contaminated clothing before reuse.

#### 4.2. Indication of any immediate medical attention and special treatment needed

No additional information available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media : Use any media that is appropriate for the surrounding fire.  
Special Fire Fighting Procedure : None needed

# TCS Carbide Burs /

Item # 50251G-01, 50C25-01, 50C261-01, 50C79-01, 50G79-01

## Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Friday, May 15, 2015 / Rules and Regulations

Revision date: 05/15/2015

Version: 1.0

### 5.2. Special hazards arising from the substance or mixture

- Fire hazard : Product is not flammable, however, consideration must be given to the potential fire/explosion hazards from the base material being processed. Many materials create flammable/explosive dusts or turnings when machined or ground.
- Explosion hazard : Product is not explosive.
- Reactivity : No dangerous reactions known under normal conditions of use.

### 5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment. Prevent human exposure to fire, fumes, smoke and products of combustion.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Self-contained breathing apparatus.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

- General measures : No specific emergency measures are required other than good laboratory hygiene and safety practices.

#### 6.1.1. For non-emergency personnel

- Protective equipment : Wear Protective equipment as described in Section 8.

#### 6.1.2. For emergency responders

- Protective equipment : Wear suitable protective clothing, gloves and eye or face protection.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters. Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

- For containment : Pick up, sweep up.
- Methods for cleaning up : Disposal in accordance with local regulations

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Use only with adequate ventilation. Avoid breathing dust. Wash thoroughly after handling and use, especially before eating, drinking or smoking. Consider potential exposure to components of the base materials or coatings being machined or ground. Refer to OSHA's substance specific standards for additional work practice requirements where applicable.

In normal power machining operations, the material being removed will fly off the cutting tool with considerable force. The potential for serious injury exists for both the operator and others in the work area (possibly 50 feet or more from the cutting tool). To protect against this hazard, before rotating the cutting tool, during rotation and until the rotation stops, all persons in the area must wear safety goggles or full face shields over safety glasses with side shields, along with appropriate protective clothing.

### 7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in a dry location

## SECTION 8: Exposure controls/personal protection

### 8.1. Exposure Guidelines

Name	OSHA PEL	ACGIH TLV
Titanium Carbide	Non Established	Non Established
Titanium Nitride	Non Established	Non Established
Nickel	1 mg/m3	1.5 mg/m3 (inhalable fraction)
Molybdenum	15 mg/m3 (total dust)	10 mg/m3 (inhalable fraction)
Cobalt	.1 mg/m3 (as cobalt dust)	.02 mg/m3

# TCS Carbide Burs /

Item # 50251G-01, 50C25-01, 50C261-01, 50C79-01, 50G79-01

## Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Friday, May 15, 2015 / Rules and Regulations

Revision date: 05/15/2015

Version: 1.0

No data available

### 8.2. Exposure controls

Appropriate engineering controls

: Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Ensure adequate ventilation, especially in confined areas. Do not breathe dust during use.

Personal protective equipment

: Gloves. Protective goggles.



Hand protection

: Use cloth or leather gloves.

Eye protection

: Use eye protection suitable to the environment.

Skin and body protection

: Wear protective clothing as needed to prevent contamination of personal clothing. Hearing protection may be required.

Respiratory protection

: Use NIOSH approved respirator if exposure limits are exceeded or where dust exposures are excessive. Consider the potential for exposure to components of the coatings or base material being machined or ground in selecting proper respiratory protection. Refer to OSHA's specific standards for lead, cadmium, etc. where appropriate. Selection of respiratory protection depends on the contaminant type, form and concentration. Select and use respirators in accordance with OSHA 1910.134 and good industrial hygiene

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Bur
Color	: Gray metal
Odor	: None
Odor Threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: Not Applicable
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: Solid
Relative vapour density at 20 °C	: Heavier than air
Relative density	: No data available
Solubility	: Water: Negligible
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Explosive properties	: Not applicable
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No dangerous reactions known under normal conditions of use.

# TCS Carbide Burs /

Item # 50251G-01, 50C25-01, 50C261-01, 50C79-01, 50G79-01

## Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Friday, May 15, 2015 / Rules and Regulations

Revision date: 05/15/2015

Version: 1.0

### 10.2. Chemical stability

Stable under use and storage conditions as recommended in section 7.

### 10.3. Possibility of hazardous reactions

None known.

### 10.4. Conditions to avoid

None known.

### 10.5. Incompatible materials

None known.

### 10.6. Hazardous decomposition products

Dust from machining could contain ingredients listed in Section 3 and other, potentially more hazardous components of the base material being processes or coatings applied to the base material.

### 10.7. Hazardous Polymerization:

Will not occur

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### HEALTH HAZARDS:

**Ingestion:** None expected under normal use conditions. Swallowing large pieces may cause obstruction of the gastrointestinal tract.

**Inhalation:** Dust may cause respiratory irritation.

**Eye:** Dust may cause eye irritation. Dust particles may cause abrasive injury to the eyes.

**Skin:** Rubbing product across the skin may cause mechanical irritation or abrasions. Nickel exposure can cause an allergic dermatitis called "nickel itch". Chromium and cobalt exposure can cause skin irritation and skin sensitization.

**Sensitization:** Nickel, chromium and cobalt can cause skin and/or respiratory sensitization.

**Chronic:** Long-term overexposure to respirable dust may cause lung damage (fibrosis) with symptoms of coughing, shortness of breath and diminished breathing capacity. Skin and/or respiratory sensitization may also occur. Chronic effects may be aggravated by smoking. Prolonged exposure to elevated noise levels during operations may affect hearing. A greater hazard, in most cases, is the exposure to the dust/fumes from the material or paint/coatings being processed. Most of the dust generated during machining is from the base material being machined and the potential hazard from this exposure must be evaluated.

**Carcinogenicity:** Nickel and cobalt are classified as group 2B carcinogens by IARC. Nickel is listed by NTP as reasonably anticipated to be a carcinogen.

**Medical Conditions Aggravated by Exposure:** Employees with pre-existing respiratory disease may be at risk from exposure.

#### Acute Toxicity Values:

This product and its components are not acutely toxic. The only acute toxicity data available for the components are listed below.

Cobalt: LD50 oral rat: 6,171 mg/kg

## SECTION 12: Ecological information

### 12.1. Toxicity

No additional information available

### 12.2. Persistence and degradability

No additional information available.

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

13.1. Dispose in accordance with all applicable local, state/provincial and federal regulations. Local regulations may be more stringent than regional and national requirements. It is the responsibility of the waste generator to determine the toxicity and physical characteristics of the material to determine the proper waste identification and disposal in compliance with applicable regulations.

# TCS Carbide Burs /

Item # 50251G-01, 50C25-01, 50C261-01, 50C79-01, 50G79-01

## Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Friday, May 15, 2015 / Rules and Regulations

Revision date: 05/15/2015 Version: 1.0

### SECTION 14: Transport information

In accordance with DOT

Not hazardous for transport

#### Additional information

Other information : No supplementary information available.

#### Transport by sea

No additional information available

#### Air transport

No additional information available

Labels Requires: None

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

##### TCS Carbide Burs

SARA Section 311/312 Hazard Classes	None
-------------------------------------	------

**SARA Section 313:** Some products contain the following toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372 (Toxic Chemical Release Reporting):

Cobalt	7440-48-7	20% max.
Nickel	7440-02-0	20% max.

**California Proposition 65:** WARNING You create dust when you cut, sand, drill or grind materials such as wood, paint, cement, masonry or metal. This dust often contains chemicals known to cause cancer, birth defects or other reproductive harm.

**EPA TSCA Inventory:** All of the ingredients in this product are listed on the EPA TSCA Inventory.

**Canadian WHMIS Classification:** Not a controlled product. This product meets the definition of a "manufactured article" under the WHMIS regulations.

**Canadian CEPA:** All of the ingredients are listed on the Canadian DSL.

This product has been classified under the CPR and this MSDS discloses information elements required by the CPR.

### SECTION 16: Other information

Indication of changes : Revision 1.0: New SDS Created.

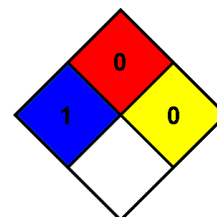
Revision date : 05/15/2015

Other information : Author: MSP.

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard : 0 - Materials that will not burn.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



#### HMIS III Rating

Health : 1

Flammability : 0

Physical : 0

Personal Protection :

# TCS Carbide Burs /

**Item # 50251G-01, 50C25-01, 50C261-01, 50C79-01, 50G79-01**

## Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Friday, May 15, 2015 / Rules and Regulations

Revision date: 05/15/2015      Version: 1.0

---

All information, recommendations and suggestions appearing herein concerning this product are based upon data obtained from the manufacturer and/or recognized technical sources; however, Thermoplastic Comfort System, Inc. makes no warranty, representation or guarantee as to the accuracy, sufficiency, or completeness of the material set forth herein. It is the user's responsibility to determine the safety, toxicity and suitability of his/her own use, handling and disposal of the product. Since actual use by others is beyond our control, no warranty, expressed or implied, is made by Thermoplastic Comfort System, Inc. as to the effects of such use. Thermoplastic Comfort System, Inc. does not assume any liability arising out of use by others of the product referred to herein. The data in this Material Safety Data Sheet relate only to the specific material designated herein and does not relate to use in combination with any other material.