SAFETY DATA SHEET

A-09E

Section 1 : Identification

<table>
<thead>
<tr>
<th>GHS identifier</th>
<th>Carbide Burrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product CODE</td>
<td>01-V Carbide Burrs (001; 002; 003; 004; 005; 006; 007; 008; 009; 010; 011; 013; 014; 015; 016; 017; 018; 020; 021; 022; 023; 024; 025; 026; 027; 028; 029; 030; 031; 032; 033; 034; 035; 036; 037; 038; 039; 040; 041; 043; 044; 045; 046; 047; 048; 049; 050; 051; 052; 060; 061; 062; 064; 065; 066; 067; 069; 070; 071; 072; 073; 075; 631; 641; 644; 646; 652)</td>
</tr>
<tr>
<td>SDS No</td>
<td>A-09E</td>
</tr>
<tr>
<td>Product type</td>
<td>All carbide burrs</td>
</tr>
<tr>
<td>Identified Uses</td>
<td>Tooling</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Walter Surface Technologies Inc.</td>
</tr>
<tr>
<td></td>
<td>5977 Trans Canada Highway West</td>
</tr>
<tr>
<td></td>
<td>Pointe-Claire, Quebec</td>
</tr>
<tr>
<td></td>
<td>H9R 1C1</td>
</tr>
<tr>
<td></td>
<td>Phone: 514-630-2800</td>
</tr>
<tr>
<td></td>
<td>Toll Free: 1-800-363-7368</td>
</tr>
<tr>
<td></td>
<td>Fax: 514-630-2825</td>
</tr>
</tbody>
</table>

Emergency telephone number

CANUTEC (Canadian Transport Emergency Centre), (613) 996-6666,

24 hours / 7 days
Section 2: Hazards Identification

OSHA/HCS Status: While this material is not considered hazardous by the OHSA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification: Not classified

GHS Label Element

Signal Word: No signal word

Hazard Statement: No known significant effects or critical hazards

Precautionary Statements

General: Read Safety Data Sheet before use. Keep out of reach of children.

Prevention: Not applicable.

Response: Not applicable.

Storage: Not applicable.

Disposal: Not applicable.

Hazard Not Otherwise Classified: None known

Section 3: Ingredients and composition of product

Hazardous Ingredients:

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS Number</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cobalt</td>
<td>7440-48-4</td>
<td>3-30</td>
</tr>
<tr>
<td>Tungsten Carbide</td>
<td>12070-12-1</td>
<td>&gt;50</td>
</tr>
<tr>
<td>Chromium Carbide</td>
<td>12012-35-0</td>
<td>0-6</td>
</tr>
<tr>
<td>Molybdenum Carbide</td>
<td>12069-89-5</td>
<td>0-6</td>
</tr>
</tbody>
</table>

Any concentration shown as a range is to protect confidentiality or is due to a batch variation.

All Walter Surface Technologies’ carbides burrs are manufactured articles. The greatest part of the projected dust during the work comes from the work piece and not from the brush.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.
Section 4: First Aid Measures

Description of necessary first aid measures

**Inhalation**: Move victim to fresh air. If the victim still feels unwell, consult a physician.

**Skin Contact**: Wash gently and thoroughly with lukewarm, flowing water and non-abrasive soap for 5 minutes. If signs/symptoms develop, consult a physician.

**Eyes Contact**: Flush the contaminated eye(s) with large amounts of clean water for 5 minutes while holding the eyelid(s) open. Do not remove embedded objects. Continue rinsing. Consult physician if necessary.

**Ingestion**: Dilate with water. Consult physician if necessary.

**Others**: Treat scrapes or cuts by cleaning wound. Apply sterile dressing.

Most important symptoms and effects, both acute and delayed

Potential acute health effects

**Inhalation**: No known significant effects or critical hazards

**Skin Contact**: No known significant effects or critical hazards

**Eyes Contact**: No known significant effects or critical hazards

**Ingestion**: No known significant effects or critical hazards

Over-exposure signs/symptoms

**Inhalation**: No known significant effects or critical hazards

**Skin Contact**: No known significant effects or critical hazards

**Eyes Contact**: No known significant effects or critical hazards

**Ingestion**: No known significant effects or critical hazards

Indication of any immediate medical attention and special treatment needed

None

See toxicological information (Section 11)
Section 5: Fire-Fighting Measures

**Extinguish Media**

**Suitable extinguish Media** : Water, sodium, chloride, soda ash

**Unsuitable extinguish Media** : None Known

**Hazardous thermal decomposition products**: 

During combustion, toxic fumes may occur, use protective equipment. Decomposition products may include the following material:

**Substance**: Carbon monoxide and Carbon Dioxide

**Special protective actions for fire-fighter**: 

No special measures are required.

Section 6: Accidental Release Measures

**Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel** : Not applicable

**For emergency responders** : Not applicable

**Environmental precautions** : Not applicable

**Methods and materials for containment and cleaning up**

Not applicable

Section 7: Handling and Storage

**Precautions for safe handling** : Follow safety standards for grinding (ANSI B11.09-2010)

**Precautions for safe storage** : There is no special storage requirement
Section 8: Exposure Control & Personal Protection

Control parameters

Occupational exposure limit:

The following table presents the limit for air contaminant from OSHA 1910-Z-1 Table.

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Limit value (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cobalt</td>
<td>0.1</td>
</tr>
<tr>
<td>Tungstene Carbide</td>
<td>Not available</td>
</tr>
<tr>
<td>Chromium Carbide</td>
<td>Not available</td>
</tr>
<tr>
<td>Molybdenum Carbide</td>
<td>Not available</td>
</tr>
</tbody>
</table>

When used in conformity with the industry standards, the cobalt percentage in the air from the carbide burrs is below 0.1 mg/m³.

Appropriate engineer control:

General ventilation is adequate to evacuate the dust from the working area. With good ventilation, the exposure of every ingredient should be below the limit. Make sure all the equipment is in good condition.

Environment exposure control:

Not applicable

Individual Personal Protection

Eyes Protection:

Wear protective goggles with safe shields.

Hand Protection:

Wear Gloves.

Skin Protection:

Wear long clothes. Smock is recommended.

Respiratory Protection:

Use of a protective half or full face mask.

Hearing Protection:

Ear protection is recommended.
Section 9: Physical & Chemical Properties

Appearance

Physical state : Solid
Appearance : Dark grey metal
Odour : Odorless
Boiling Point : Not available
Freezing Point : Not available
Specific Gravity : 11.0 to 15.5
pH : Not available
Vapour Pressure : Not available
Evaporation : Not available
Flashpoint : Not available
Auto ignition temperature : Not available
Sensitivity to mechanical : Not available

Section 10: Stability & Reactivity

Reactivity : None known
Chemical Stability : This product is stable
Possibility to Hazardous Reaction : None known
Conditions to avoid : None known
Incompatible Material : None known

Hazardous decomposition products:
Under normal conditions of use, hazardous decomposition products should not be produced.
Section 11: Toxicology

Information on toxicological effects

**Acute Toxicity**

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>Oral Acute Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cobalt</td>
<td>LD50: &gt; 6170 mg/kg (Rat)</td>
</tr>
</tbody>
</table>

**Irritation/Corrosion**: Uncontrolled dust can affect eyes and respiration.

**Sensitization**: No known significant effects

**Carcinogenicity**: No known significant effects

**Reproductive Toxicity**: No known significant effects

**Specific target organ toxicity - Single exposure**: No known significant effects

**Specific target organ toxicity - Repeated exposure**: No known significant effects

**Aspiration Hazard**: No known significant effects

Information on the likely routes of exposure:

Inhalation, Skin contact, Eyes contact, Ingestion

**Potential acute health effects**

**Inhalation**: No known significant effects or critical hazards

**Skin Contact**: No known significant effects or critical hazards

**Eyes Contact**: No known significant effects or critical hazards

**Ingestion**: No known significant effects or critical hazards

**Symptoms related to the physical, chemical and toxicological characteristics**

**Inhalation**: No known significant effects or critical hazards

**Skin Contact**: No known significant effects or critical hazards

**Eyes Contact**: No known significant effects or critical hazards

**Ingestion**: No known significant effects or critical hazards

**Short term exposure**

**Potential immediate effect**: No known significant effects or critical hazards
Potential delayed effect: No known significant effects or critical hazards

Long term exposure

Potential immediate effect: No known significant effects or critical hazards

Potential delayed effect: No known significant effects or critical hazards

Potential Chronic Health Effects

General: No known significant effects or critical hazards

Carcinogenicity: No known significant effects or critical hazards

Mutagenicity: No known significant effects or critical hazards

Teratogenicity: No known significant effects or critical hazards

Developmental Effects: No known significant effects or critical hazards

Fertility Effects: No known significant effects or critical hazards

Section 12: Ecological Information

Toxicity

Aquatic Toxicity: No known significant effects or critical hazards.

Persistence and degradability: No known significant effects or critical hazards.

Bioaccumulation potential: No known significant effects or critical hazards.

Mobility in soil: No known significant effects or critical hazards.

Other adverse effects: No known significant effects or critical hazards.

Section 13: Disposal Considerations

Disposal methods: Dispose as per local, regional, national and international regulations.

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

EPA Hazardous Waste Number (RCRA): Not regulated
Section 14: Transport Information

<table>
<thead>
<tr>
<th>DOT Classification</th>
<th>IMDG</th>
<th>IATA</th>
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<tbody>
<tr>
<td>UN Number</td>
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</tr>
<tr>
<td>UN Proper shipping name</td>
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<tr>
<td>Transport Hazards Class</td>
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<tr>
<td>Packing Group</td>
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<tr>
<td>Environmental Hazards</td>
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<td>No</td>
</tr>
<tr>
<td>Additional Information</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Special precautions for user : None

Section 15: Regulatory Information

US Federal Regulations : Contact Walter Surface Technologies for more information.


State Regulations : Contact Walter Surface Technologies for more information.

Chemical Inventories : This product is defined by TSCA regulations and is exempt from TSCA Inventory listing requirements.

International Regulations : Contact Walter Surface Technologies for more information.

This SDS has been prepared to meet the U.S OSHA Hazard Communication Standard, 29 CFR 1910.1200.
Section 16: Other Information

History

Date of issue mm/dd/yyyy : 05/21/2015
Version : 1
Prepared by : Walter Surface Technologies Inc.

Notice to reader:
To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.