



## MATERIAL SAFETY DATA SHEET

### Lenox<sup>®</sup> Saw Blades

#### **SECTION I: GENERAL INFORMATION**

**Manufacturer's Name:**

American Saw & Mfg. Company

**Address:**

301 Chestnut Street  
East Longmeadow, MA 01028-0504

**Product Name:**

Lenox<sup>®</sup> Saw Blades

**Chemical Name and Synonyms:**

Carbon Steel  
Alloy Steel  
High Speed Steel  
Carbide

**Emergency Telephone Number:**

(413) 525-3961

**MSDS Date:** March 2, 2007

**Chemical Family:**

Steel; Refractory Metal Carbide

**Formula:**

Metal and Carbide Materials, see  
Section 2 below

#### **SECTION 2: HAZARDOUS INGREDIENTS**

Lenox<sup>®</sup> saw blades are manufactured from metals into solid, stable and inert blades, and are coated with a water-based paint(s). Under normal sawing conditions, the saw blades are considered to be articles in that they do not release more than very small quantities of hazardous chemicals and do not cause physical or health hazards as defined in the OSHA Hazard Communication Standard. Hazardous chemicals may be released if the blades are welded, cut, grinded, melted or otherwise physically altered.

This MSDS was prepared to address the potential for exposure to dust and/or fume generated from the saw blade. Beyond the scope of this MSDS, the material being cut may contain hazardous chemicals and therefore needs to be evaluated with effective controls instituted to prevent exposure.

The actual composition of the saw blades varies depending on the type of saw blade and the grade of steel it is made from. Each blade may contain any of the following ingredients:

#### **SAW BLADE METAL COMPONENTS<sup>1</sup>**

<u>INGREDIENT</u>	<u>MAX %</u>	<u>CAS NUMBER</u>	<u>OSHA PEL (mg/M<sup>3</sup>)</u>	<u>2006 ACGIH TLV<sup>®</sup> (mg/M<sup>3</sup>)</u>
Carbon	< 2	7440-44-0	Not Established	Not Established
Chromium	<5	7440-47-3	1 (as metal)	0.5
Cobalt	<9	7440-48-4	0.1	0.02
Iron	<90	7439-89-6	10 (as oxide fume)	5 (as oxide dust or fume)
Manganese	<2	7439-96-5	5 Ceiling	0.2
Molybdenum	<10	7439-98-7	15 (insoluble)	10 (insoluble)
Nickel	<2	7440-02-0	1	1.5 (elemental)
Silicon	<2	7440-21-3	15	10
Tungsten	<7	7440-33-7	Not Established	5-TWA; 10-STEL (metal)
Vanadium	<3	7440-62-2	0.5 Ceiling, respirable	0.05 (as oxide)

The metal alloy may also contain less than one percent of sulfur, phosphorous, aluminum, copper, tin, calcium antimony, niobium, and arsenic.

<sup>1</sup> Occupational exposure limits are Time Weighted Average (TWA) values unless otherwise noted, and Total Particulate (OSHA) unless otherwise noted.

**CARBIDE-TIPPED TOOTH AND GRIT COMPONENTS**

Selected Lenox® Saw Blades have carbide tipped teeth or carbide grit cutting surfaces; the following metals are present in the carbide teeth and grit:

<u>INGREDIENT</u>	<u>MAX %</u>	<u>CAS NUMBER</u>	<u>OSHA PEL (mg/M<sup>3</sup>)</u>	<u>2006 ACGIH TLV® (mg/M<sup>3</sup>)</u>
Cobalt	<11	7440-48-4	0.1	0.02
Tantalum Carbide	<3	12070-06-3	Not Established	Not Established
Tungsten Carbide	<87	12070-12-1	Not Established -	5-TWA; 10-STEL

The carbide tooth and grit alloy may also contain less than one percent of chromium carbide.

**LENOX® ARMOR™ CT GOLD COATINGS**

Selected Lenox® Saw Blades have a gold coating that contains the following ingredients:

<u>INGREDIENT</u>	<u>MAX %</u>	<u>CAS NUMBER</u>	<u>OSHA PEL (mg/M<sup>3</sup>)</u>	<u>2006 ACGIH TLV® (mg/M<sup>3</sup>)</u>
Titanium	20-40	440-32-6	Not Established	Not Established
Aluminum	20-40	7429-90-5	15 (metal)	10 (metal)

**LENOX® DIAMOND GRIT™ COATINGS**

Selected Lenox® Saw Blades have a diamond grit coating that contains the following ingredients:

<u>INGREDIENT</u>	<u>MAX %</u>	<u>CAS NUMBER</u>	<u>OSHA PEL (mg/M<sup>3</sup>)</u>	<u>2006 ACGIH TLV® (mg/M<sup>3</sup>)</u>
Carbon	< 2	7440-44-0	Not Established	Not Established
Chromium	< 1	7440-47-3	1 (as metal)	0.5
Iron	< 99	7439-89-6	10 (as oxide fume)	5 (as oxide dust or fume)
Manganese	< 2	7439-96-5	5 Ceiling	0.2
Silicon	< 2	7440-21-3	15	10

The grit coating may also contain less than one percent of copper and nickel.

**SECTION 3: PHYSICAL DATA**

<u>Boiling point</u>	N/A	<u>Vapor pressure</u>	N/A
<u>Melting point</u>	Approximately 2800°F	<u>Vapor density</u>	N/A
<u>Solubility in water</u>	Insoluble	<u>Specific gravity (H<sub>2</sub>O=1)</u>	Approx. 8
<u>Appearance</u>	metal blade	<u>Percent volatile</u>	N/A
<u>Evaporation Rate</u>	N/A	<u>Odor</u>	None

**SECTION 4: FIRE AND EXPLOSION DATA**

Saw blades are made from non-combustible metals.

**SECTION 5: HEALTH HAZARD DATA**

The following health hazard data addresses exposure to elevated concentrations of airborne dusts and/or fumes generated from physical dissociation of the saw blade metal.

<u>ROUTE OF ENTRY</u>	<u>EMERGENCY FIRST AID</u>
Inhalation	Move person to fresh air. Seek medical attention as appropriate.
Eye Contact	Flush eyes with large amounts of water. Slivers may occur. Get medical attention.
Skin Contact	Vacuum or brush off excess dust. Slivers may occur. Wash area with soap and water.
Ingestion	Seek medical attention or call a Poison Control Center.

Various health hazards may occur if high concentrations of the saw blade metal dust and/or fume are inhaled or ingested:

Aluminum: Irritation eyes and respiratory system.

Carbon - Irritation eyes, skin, and respiratory system.

Chromium - Irritation eyes, skin, and respiratory system, sensitization dermatitis, lung fibrosis; oxidizing chromium metal may generate hexavalent chromium, which is a human carcinogen (OSHA, IARC, and NTP).

Cobalt - Cough, dyspnea, wheezing, decreased pulmonary function, weight loss, dermatitis, diffuse nodular fibrosis, respiratory hypersensitivity, asthma. Possible human carcinogen (IARC).

Iron - Benign pneumoconiosis (siderosis).

Manganese - Parkinson's, asthenia, insomnia, mental confusion, metal fume fever, dry throat, tightness in chest, dyspnea, rales, flu-like fever, low back pain, vomiting, malaise, fatigue, kidney damage.

Molybdenum - Irritation to eyes, skin, respiratory system, anorexia, incoordination, dyspnea, anemia.

Nickel - Sensitization dermatitis, allergic asthma, pneumonitis. Reasonably anticipated to cause cancer (IARC and NTP).

Silicon - Irritation to respiratory system.

Titanium: Irritation of eyes, skin, digestive, respiratory system, respiratory disease.

Tungsten - Irritation to eyes, skin, respiratory system, diffuse pulmonary fibrosis, loss of appetite, nausea, coughing, blood changes.

Tungsten Carbide - Irritation to eyes, skin, and respiratory system, skin sensitization, diffuse pulmonary fibrosis, loss of appetite, nausea, cough, blood changes.

Vanadium - Irritation to eyes skin, respiratory system, fine rales, wheezing, bronchitis, and dyspnea.

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## **SECTION 6: REACTIVITY DATA**

Stability: Saw blades are stable.

Incompatibility: Reaction with strong acids and oxidizers may release hydrogen gas and other reaction byproducts.

Hazardous Decomposition Products: Metallic oxides and/or metal fumes from welding, burning or melting operations.

Polymerization: Will not occur.

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## **SECTION 7: SPILL OR LEAK PROCEDURES**

Saw blade dust should be cleaned up to avoid airborne dust generation or release to the environment. Dust disposal must follow all applicable federal, state and local laws and regulations.

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## **SECTION 8: SPECIAL PROTECTION INFORMATION**

Ventilation: Mechanical ventilation should be used to capture, exhaust and collect airborne dusts and fumes.

Personal Protective Equipment:

Eyes: ANSI Z87.1 approved eye protection needs to be worn when the potential for eye contact with the saw blade, dusts or fumes exists. At a minimum, side shields on ANSI Z87 safety spectacles must be worn.

Skin: Cut resistant gloves when handling the saw blades; other body protection as appropriate.

Respiratory System: NIOSH approved respirators with P-100 filters should be worn when the potential for exposure to metal particulates is anticipated to be in the range of or above respective occupational exposure limits. A comprehensive respiratory protection program is required for personnel wearing respiratory protection.

**SECTION 9: SPECIAL PRECAUTIONS**

Saw blades may be coated with a thin layer of preservative oil as a rust inhibitor. The blades may also be painted and stenciled. These coatings are not believed to create any occupational health or physical hazards.

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**SECTION 10: ENVIRONMENTAL REPORTING**

Releases of ingredients in the saw blades to the environment may be reportable to federal, state and or local agencies.