MATERIAL SAFETY DATA SHEET

LENOX® Saw Blades

SECTION I: GENERAL INFORMATION

Manufacturer's Name:
Lenox Tools
Address:
301 Chestnut Street
East Longmeadow, MA 01028-0504
Product Name:
Lenox Saw Blades
Chemical Name and Synonyms:
Carbon Steel
Alloy Steel
High Speed Steel
Carbide

Emergency Telephone Number:
1-800-642-0010
MSDS Date:
October 11, 2012
Chemical Family:
Steel; Refractory Metal Carbide
Formula:
Metal and Carbide Materials, see Section 2 below

SECTION 2: HAZARDOUS INGREDIENTS

Lenox 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:

INGREDIENT	MAX %	CAS NUMBER	OSHA PEL (mg/M3)	2006 ACGIH TLV® (mg/M3)
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.

1Occupational 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:

INGREDIENT	MAX %	CAS NUMBER	OSHA PEL (mg/M3)	2006 ACGIH TLV® (mg/M3)
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 that one percent of chromium carbide.

LENOX ARMOR CT BLACK COATINGS

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

INGREDIENT	MAX %	CAS NUMBER	OSHA PEL (mg/M3)	2006 ACGIH TLV® (mg/M3)
Titanium	20-40	440-32-6	Not Established	Not Established
Aluminum	20-40	7429-90-5	15 (metal)	10 (metal)
Nitrogen	Balance	7727-37-9	Not Established	Simple asphyxiant

LENOX¨ DIAMOND GRIT COATINGS

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

INGREDIENT	MAX %	CAS NUMBER	OSHA PEL (mg/M3)	2006 ACGIH TLV® (mg/M3)
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

Boiling point	N/A	Vapor pressure	N/A
Melting point	Approximately 2800°F	Vapor density	N/A
Solubility in water	Insoluble	Specific gravity (H20=1)	Approx. 8
Appearance	Metal blade	Percent volatile	N/A
Evaporation Rate	N/A	Odor	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.

ROUTE OF ENTRY	EMERGENCY FIRST AID
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, dypsnea, 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, dypsnea, rales, flu-like fever, low back pain, vomiting, malaise, fatigue, kidney damage.
Molybdenum -Irritation to eyes, skin, respiratory system, anorexia, incoordination, dypsnea, 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 dypsnea.

SECTION 6: REACTIVITY DATA

Stability: Saw blades are stable.
Incompatibility: Reaction with strong acids and oxidizers may release hydrogen gas and other reaction by products.
Hazardous Decomposition Products: Metallic oxides and/or metal fumes from welding, burningor melting operations.
Polymerization: Will not occur.

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.

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

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.

SECTION 10: ENVIRONMENTAL REPORTING

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