

# MSDS **Material Safety Data Sheet**

**Wilsonart International**



MSDS Number: 17908

**Wilsonart® Decorative Metal Type 414 (Pattern S6501)**

Revision Date: 04/15/08

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## 1 **PRODUCT AND COMPANY IDENTIFICATION**

**Common Name** Wilsonart® Decorative Metal Type 414 (Pattern S6501)

**Manufacturer** WILSONART INTERNATIONAL, INC.  
P. O. BOX 6110 – 2400 WILSON PLACE  
TEMPLE, TX 76503  
**INFORMATION PHONE:** 800-433-3222 (USA)

**Trade Name** Wilsonart® Decorative Metal Type 414 (Pattern S6501)

**Material Uses** Decorative Surfacing

**Revision #** 1

### **In Case of Emergency Contact:**

**CHEMTREC:** 800-424-9300 (USA)  
703-527-3887 (INTERNATIONAL)

## 2 **HAZARDS IDENTIFICATION**

**Route of Entry:** None for product as sold. For dust, chips, or fumes generated during fabrication operations: eye contact, skin contact, and inhalation.

**Target Organs:** None for product as sold. For dust, chips, or fumes generated during fabrication operations: eye contact, skin contact, and inhalation.

**Inhalation:** No hazard for product as sold. Fabrication operations such as milling, cutting, grinding, welding, brazing, etc., may produce dust, chips, or fumes that may be irritating or harmful if inhaled. See Section 8.

**Acute Effects:** Excessive inhalation of fumes from freshly formed metal oxide particles may produce an acute reaction known as “metal fume fever”. Symptoms include chills and fever similar to flu symptoms, dryness and irritation of the throat, metallic taste in the mouth, followed by muscle weakness and pain. Symptom onset after excessive exposure to fumes is generally a few hours after exposure and lasting 12 to 48 hours.

**Chronic Effects:** Chronic inhalation of metallic fumes is associated with the following conditions. Iron oxide fume inhalation is associated with the development of benign pneumoconiosis, known as Siderosis. Iron oxide is listed as an IARC Group 3 material. The health hazards associated with the exposure to Chromium are dependent upon the oxidation state. The metal form (as it exists in this product) is of low toxicity.

**Skin Contact:** Solid sheet may be abrasive to, or cut skin. Fabrication operations such as milling, cutting, grinding, welding, brazing, etc., may produce dust, chips, or fumes that may be irritating.

**Eye Contact:** No hazard for product as sold. Fabrication operations such as milling, cutting, grinding, welding, brazing, etc., may produce dust, chips, or fumes that may be irritating.

**Ingestion:** Not an expected route of entry.

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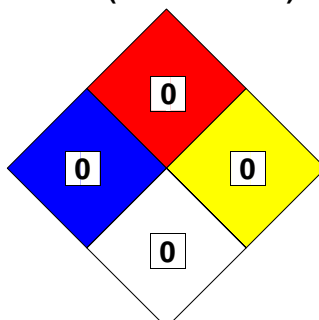
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<b>HMIS (United States):</b>	
<b>HEALTH</b>	<b>0</b>
<b>FLAMMABILITY</b>	<b>0</b>
<b>REACTIVITY</b>	<b>0</b>
<b>PPE</b>	<b>B</b>

**NFPA (United States):**

**WHMIS (Canada): D2**



### 3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS#	% by Weight
Iron	7439-89-6	> 91.00
Aluminum	7429-90-5	0.25 – 4.64
Carbon	7440-44-0	0.14 – 0.89
Chromium	7440-47-3	0.04 – 0.70
Copper	7440-50-8	0.05 – 0.40
Manganese	7439-96-5	0.05 – 2.00
Nickel	7440-02-0	0.00 – 0.50
Silicon	7440-21-3	0.01 – 1.00
Zinc	7440-66-6	0.20 – 3.84
Styrene-Acrylic Copolymer	100-42-5	0.02 – 0.06

Material may contain trace or residual elements. The following are typical percentages for the elements identified: Boron – 0.001%, Calcium – 0.0003%, Molybdenum – 0.006%, Niobium (Columbium) – 0.04%, Phosphorus – 0.04%, Sulfur – 0.015%, Tin – 0.004%, Titanium – 0.06%, and Vanadium – 0.001%.

### 4 FIRST AID MEASURES

- Inhalation:** No hazard for product as sold. Fabrication operations such as milling, cutting, grinding, etc., may produce dust or chips that may be irritating or harmful if inhaled. If irritation persists, seek medical attention.
- Skin Contact:** Solid sheet may be abrasive to, or cut skin. Fabrication operations such as milling, cutting, grinding, etc., may produce dust or chips that may be irritating. If irritation persists, seek medical attention.
- Eye Contact:** No hazard for product as sold. Fabrication operations such as milling, cutting, grinding, etc., may produce dust or chips that may be irritating. For dust or chips, flush eyes with water. If irritation persists, seek medical attention.
- Ingestion:** Not an expected route of entry with normal use of product.

### 5 FIRE FIGHTING MEASURES

<b>Flash Point:</b>	Not Applicable.	<b>LEL:</b>	Not Applicable.
<b>Flash Point Method:</b>	Not Applicable.	<b>UEL:</b>	Not Applicable.
<b>Autoignition Temp.:</b>	Not Applicable.		
<b>Burning Rate:</b>	Not Applicable.		

Use extinguishing media appropriate for surrounding fire. Wear fire protective equipment appropriate for the surrounding fire. Do not release runoff from fire control measures to sewers and/or waterways.

**Unusual Fire and Explosion Hazards**

Product as sold does not present an explosion hazard. Finely divided dust generated by fabrication operations such as milling, cutting, grinding, etc., can create an explosion hazard if the airborne dust concentration exceeds 900 grams per cubic meter and it contacts an ignition source greater than 8 Joules. (A person standing in a uniformly dispersed dust cloud of 50 grams per cubic meter will not be able to see his/her outstretched hand.)

**6 ACCIDENTAL RELEASE MEASURES**

**Small Spill or Leak:** Not Applicable.  
**Large Spill or Leak:** Not Applicable.

**7 HANDLING AND STORAGE**

**Handling Precautions:** No specific usage precautions required. Follow normal good hygiene practices. Protect exposed areas from cuts and abrasions.

**Storage Requirements:** Store in a dry well-ventilated area. Store away from acids and other incompatible materials.

**8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Engineering Controls:** No special ventilation requirements for product as sold. Provide adequate ventilation to meet exposure guideline if fabrication operations generate dust, chips, or fumes.

**Protective Equipment:** No specific recommendations made, but respiratory protection must be used if the general level exceeds the Occupational Exposure Level (OEL).

Gloves suitable for protection against cuts and abrasions from sharp edges are recommended.

Wear safety glasses or goggles during fabrication operations that may produce dust or chips.

**Exposure Guidelines / Other:**

Product Name	Exposure Limits
Base metal	Iron: OSHA PEL: 10 mg/m <sup>3</sup> Respirable (as iron oxide) ACGIH TWA: 5 mg/m <sup>3</sup> Respirable (as iron oxide)
	Manganese: OSHA PEL: 5 mg/m <sup>3</sup> Ceiling ACGIH TWA: 0.2 mg/m <sup>3</sup> Total
Metallic coating	Aluminum: OSHA PEL: 15 mg/m <sup>3</sup> Total 5 mg/mg <sup>3</sup> Respirable ACGIH TWA: 10 mg/m <sup>3</sup> Respirable
	Zinc: OSHA PEL: 15 mg/m <sup>3</sup> Total (as zinc oxide) 5 mg/m <sup>3</sup> Respirable (as zinc oxide) ACGIH TWA: 2 mg/m <sup>3</sup> Respirable (as zinc oxide)
Resin coating	Silicon: OSHA PEL: 15 mg/m <sup>3</sup> Total 5 mg/m <sup>3</sup> Respirable
	Styrene Acrylic Copolymer: OSHA PEL: 100 ppm OSHA STEL: 200 ppm ACGIH TWA: 20 ppm ACGIH STEL: 40 ppm
	Chromium OSHA PEL: 1.0 mg/m <sup>3</sup> (as chromium metal)

ACGIH TLV: 0.5 mg/m<sup>3</sup> (as chromium II & III)  
0.05 mg/m<sup>3</sup> (as chromium VI)  
0.5 mg/m<sup>3</sup> (as chromium metal)  
0.5 mg/m<sup>3</sup> (as chromium II & III)  
0.05 mg/m<sup>3</sup> (as chromium VI)

Material may contain trace or residual elements. The following are typical percentages for the elements identified: Boron – 0.001%, Chromium – 0.02%, Copper – 0.02%, Molybdenum – 0.006%, Nickel – 0.02%, Niobium (Columbium) – 0.04%, Phosphorus – 0.04%, Sulfur – 0.015%, Tin – 0.004%, Titanium – 0.06%, and Vanadium – 0.001%

Consult local authorities and regulations for exposure limits.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Solid Decorative Sheet	<b>Boiling Point:</b>	Not Applicable
<b>Physical State:</b>	Solid	<b>Freezing / Melting point:</b>	Base metal M.P. ~ 2750°F
<b>Odor:</b>	None	<b>Solubility:</b>	Not Soluble
<b>pH:</b>	Not Applicable	<b>Specific Gravity (H<sub>2</sub>O=1):</b>	7.85
<b>Vapor Pressure:</b>	Not Applicable	<b>Density:</b>	490 lbs /ft <sup>3</sup>
<b>Vapor Density:</b>	Not Applicable		
<b>VOC:</b>	Not Applicable		

## 10 STABILITY AND REACTIVITY

<b>Stability:</b>	Product is stable as supplied.
<b>Conditions to Avoid:</b>	Reacts with strong acids to evolve hydrogen. Dust from product may react with calcium hypochlorite to evolve oxygen.
<b>Materials to Avoid (incompatibility):</b>	None.
<b>Hazardous Decomposition Products:</b>	Coatings may yield carbon oxides (CO and CO <sub>2</sub> ). Thermal oxidation of product can produce fumes containing the oxides of iron, zinc, and aluminum as well as other metal elements present in the product.
<b>Hazardous Polymerization:</b>	Will not polymerize.

## 11 TOXICOLOGICAL INFORMATION

**Toxicity to Animals:** This product has not been tested for animal effects. This product, as sold, is not expected to be toxic to animals.

**Toxicity to Humans:** This product has not been tested for human effects. This product, as sold, is not expected to be toxic to humans.

This product, as sold, is generally classified as an “article” and does not constitute a hazardous material in solid form under the terms of the OSHA Hazard Communications Standard. Any article manufactured from this solid product would generally be classified as non-hazardous. However, some metallic elements contained in these products have been determined to be toxic and subject to regulatory control. These elements can be emitted as airborne contaminants under certain processing conditions such as, but not limited to, cutting, grinding, milling, machining, brazing, melting, welding, or burning.

**Toxicity Data\*:** No LC<sub>50</sub> or LD<sub>50</sub> has been established for the product as sold. Information for elemental components is as follows: Iron LD<sub>50</sub> – 30 g/kg oral (rat). Aluminum LD<sub>50</sub> – No Data. Boron LD<sub>50</sub> 2000 mg/kg oral (mouse). Calcium LD<sub>50</sub> – No Data. Carbon LD<sub>50</sub> – No Data. Chromium LD<sub>10</sub> – 71mg/kg GIT oral (human). Columbium LD<sub>50</sub> – No Data. Copper LD<sub>10</sub> –

120 µg/kg GIT ipl (rat). Manganese LD<sub>50</sub> - 9g/kg oral (rat). Molybdenum LD<sub>10</sub> - 114 mg/kg ipr (rat). Nickel LD<sub>10</sub> - 5 mg/kg oral (guinea pig). Phosphorus LD<sub>50</sub> - No Data. Silicon LD<sub>50</sub> - No Data. Sulfur LD<sub>50</sub> - No Data. Tin LD<sub>50</sub> - No Data. Titanium LD<sub>50</sub> - No Data. Vanadium LD<sub>50</sub> - 59 mg/kg scu (rabbit).

**Carcinogenic Effects:** Chromium (base metal), nickel (base metal), and styrene (resin coating) have been classified 2B (Possible for human) by IARC.

**Mutagenic Effects:** Not Available.

**Teratogenic Effects:** Not Available.

\*See the following NIOSH, RTECS references for additional information. Iron oxide - NO7400000. Aluminum oxide - BD1200000. Calcium - EV8040000. Boron - ED7350000. Carbon - FF5250000. Chromium - GB5425000. Copper - GL5325000. Manganese - OO9275000. Molybdenum - QA4680000. Nickel - QR5950000. Phosphorus - TH3500000. Silicon - WM0400000. Sulfur - WS4250000. Tin - XP7320000. Titanium - XR1700000. Vanadium Pentoxide - YW2460000.

## 12 ECOLOGICAL INFORMATION

**Ecotoxicity:** Not Available. Product as supplied is not considered ecotoxic. Individual components of the product have been found to be toxic to the environment.

**BOD5 and COD:** Not Available

**Biodegradable / OECD:** Not Available

**Mobility:** Dust and particulate may migrate into soil and groundwater and be ingested by wildlife or absorbed by plants.

**Toxicity of the Products of Biodegradation:** Not Available

**Special Remarks on the Products of Biodegradation:** Not Available

## 13 DISPOSAL CONSIDERATIONS

Waste from the product is considered a solid waste, not a hazardous waste. Any waste or excess product can be recycled for further use or disposed in an appropriately permitted waste landfill.

Dispose of in accordance with Federal, State, and local regulations.

## 14 TRANSPORT INFORMATION

**Restrictions:** None known.

**DOT Requirements:** Not a DOT controlled material (United States).

**ADR Requirements:** Not an ADR controlled material (Europe).

**IMDG Requirements:** Not an IMDG controlled material.

**IATA Requirements:** Not an IATA controlled material.

**Marine Pollutant:** Not expected to be a marine pollutant.

## 15 REGULATORY INFORMATION

### U.S. Federal Regulations

This product as sold is not subject to regulation. However, components of said product are regulated as follows:

**TSCA inventory:** The chemicals in this product are listed.

**SARA 302/304/322/312 Extremely hazardous substances:** Chromium, Copper, Manganese, Nickel, Phosphorus, and Zinc are listed.

**SARA 302/304 Emergency planning and notification:** Chromium, Copper, Manganese, Nickel.

**SARA 302/304/311/312 Hazardous chemicals:** Chromium, Copper, Manganese, Nickel.

SARA 311/312 MSDS distribution, chemical inventory, hazard identification: None.  
SARA 313 Toxic chemical notification and release reporting: Aluminum (fume or dust), Chromium, Copper, Manganese, Nickel, Phosphorus, and Zinc (fume or dust) are listed.  
RCRA: Chromium and Nickel are listed.  
CWA 307: Chromium, Copper, Nickel, and Zinc are listed.  
CWA 311: Phosphorus & Styrene.  
SDWA: Aluminum, Boron, Chromium, Copper, Iron, Manganese, Molybdenum, Nickel, Vanadium, & Zinc are listed.  
CAA 112 Accidental release prevention: Styrene is listed.  
CAA 112 Regulated flammable substances: None.  
CAA 112 Regulated toxic substances: None.

#### International Regulations

DSL (Canada) – None.  
EINECS – None.  
WHIMS (Canada) – Classified as D2B.

#### State Regulations

Massachusetts RTK: None.  
Minnesota: None.  
New Jersey RTK:  
Environmental Hazardous Substance: Aluminum (Fume or dust), Chromium, Copper, Manganese, Nickel, Phosphorus, Vanadium (fume or dust).  
Pennsylvania RTK:  
Hazardous Substances: Calcium, Molybdenum, Silicon, Sulfur, and Tin.  
Environmental Hazards: Aluminum, Chromium, Copper, Manganese, Nickel, Phosphorus, Vanadium, and Zinc.  
Special Hazard Substances: Chromium and Nickel.  
Rhode Island: None.  
California Proposition 65: This product contains the following ingredients know to the state of California to cause cancer or reproductive toxicity:  
Chromium (CAS 7440-47-3) in trace amounts.  
Nickel (CAS 7440-02-0) in trace amounts.  
Lead (CAS 7439-92-1) in trace amounts.

## 16 OTHER INFORMATION

#### References

Lewis, R. J., Rapid Guide to Hazardous Chemicals in the Workplace, 4<sup>th</sup> ed., Wiley-Interscience, New York, 2000.  
NIOSH Pocket Guide to Chemical Hazards, Department of Health and Human Services, National Institute for Occupational Safety and Health, 2004.  
TLVs and BEIs, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Agents, ACGI Worldwide, Cincinnati, 2003.

#### Glossary

ACGIH – American Conference of Governmental Industrial Hygienists  
ASTM – American Society for Testing and Materials  
ADR – Agreement on Dangerous Goods by Road (Europe)  
BOD5 – Biological Oxygen Demand in 5 days  
CAA – Clean Air Act  
CAS – Chemical Abstracts Services

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CEPA – Canadian Environmental Protection Act  
CERCLA – Comprehensive Environmental Response, Compensations and Liability Act  
CFR – Code of Federal Regulations  
CWA – Clean Water Act  
DOT – Department of Transportation  
DSCL – Dangerous Substances Classification and Labeling (Europe)  
DSL – Domestic Substance List (Canada)  
EEC/EU – European Economic Community/European Union  
EINECS – European Inventory of Existing Commercial Chemical Substances  
HCS – Hazard Communication System  
HMIS – Hazardous Material Information System  
IARC – International Agency for Research on Cancer  
LD50/LC50 – Lethal Dose/Concentration kill 50%  
LDLo/LCLo – Lowest Published Lethal Dose/Concentration  
NFPA – National Fire Prevention Association  
NIOSH – National Institute for Occupational Safety & Health  
NTP – National Toxicology Program  
OSHA – Occupational Safety & Health Administration  
PEL – Permissible Exposure Limit  
RCRA – Resource Conservation and Recovery Act  
SARA – Superfund Amendments and Reorganization Act  
STEL – Short Term Exposure Limit (15 minutes)  
TDG – Transportation of Dangerous Goods (Canada)  
TLV-TWA – Threshold Limit Value-Time Weighted Average  
TSCA – Toxic Substances Control Act  
WHMIS – Workplace Hazardous Material Information System

**CHEMTREC:**

800-424-9300 (USA)

703-527-3887 (International)

**Notice to Reader**

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named manufacturer nor any of its subsidiaries assumes any liability whatsoever for 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.*

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END OF MSDS DOCUMENT