

Safety Data Sheet

Section 1: Identification

Product Identifier

Product Name • AMS4777 Braze Foil

Relevant identified uses of the substance or mixture and uses advised against

Recommended use • Brazing Foil

Details of the supplier of the safety data sheet

Manufacturer • Aimtek, Inc.

201 Washington St. Auburn, MA 01501 United States www.aimtek.com

Telephone (General) • 508-832-5035

Section 2: Hazard Identification

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

OSHA HCS 2012

• The Aimtek Braze Foil is intended to be used as a braze filler metal in a vacuum or inert atmosphere braze furnace. Since the actual use by others is beyond our control, it is the user's responsibility to determine the suitability of the product for its use and to adopt such safety precautions as may be necessary. Since the conditions of use are not under our control, Aimtek disclaims all liability with respect to the use of any material supplied by Aimtek.

material supplied by Aimtek. Skin Sensitization 1A

Respiratory Sensitization 1B

Carcinogenicity 2
Reproductive Toxicity 2

Specific Target Organ Toxicity Repeated Exposure 2

Label elements
OSHA HCS 2012

DANGER





Hazard statements • May cause an allergic skin reaction

May cause allergy or asthma symptoms or breathing difficulties if inhaled

Preparation Date: 06/April/2017

Revision Date: 06/April/2017

Page 1 of 12

Format: GHS Language: English (US)

OSHA HCS 2012

Suspected of causing cancer.

Suspected of damaging fertility or the unborn child.

May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention • Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe dust.

Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.

In case of inadequate ventilation wear respiratory protection.

Response • IF INHALED: Remove person to fresh air and keep comfortable for breathing.

If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

If on skin: Wash with plenty of water. Wash contaminated clothing before reuse.

Specific treatment, see supplemental first aid information. If skin irritation or rash occurs: Get medical advice/attention. IF exposed or concerned: Get medical advice/attention.

Get medical advice/attention if you feel unwell.

Storage/Disposal . Store locked up.

Dispose of content and/or container in accordance with local, regional, national, and/or

international regulations.

Other hazards
OSHA HCS 2012

 Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Section 3 - Composition/Information on Ingredients

Substances

			Compos	sition	
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Nickel	CAS :7440-02-0	0% TO 100%	NDA	OSHA HCS 2012: Flam. Sol. 1; Comb. Dust; Resp. Sens. 1B; Skin Sens. 1A; Carc. 2 (Inhl); STOT RE 2 (Lungs / Orl, Inhl)	NDA
Iron [0% TO 65%]	CAS :7439-89-6	0% TO 65%	NDA	OSHA HCS 2012: Acute Tox. 4 (Orl)	NDA
Chromium [0%]	CAS :7440-47-3	0% TO 20%	NDA	OSHA HCS 2012: Not Classified	NDA
Silicon [0% TO 8%]	CAS :7440-21-3	0% TO 8%	Ingestion/Oral-Rat LD50 • 3160 mg/kg	OSHA HCS 2012: Flam. Sol. 2	NDA
Molybdenum [0% TO 6%]	CAS :7439- 98-7	0% TO 6%	NDA	OSHA HCS 2012: Flam. Sol. 1; Comb. Dust; Repr. 2 (Orl)	NDA
Boron [0% TO 5%]	CAS :7440-42-8	0% TO 5%	Ingestion/Oral-Rat LD50 • 650 mg/kg	OSHA HCS 2012: Acute Tox. 4 (orl); Repr. 2	NDA
Manganese [0% TO 2%]	CAS :7439- 96-5	0% TO 2%	Ingestion/Oral-Rat LD50 • 9 g/kg	OSHA HCS 2012: Eye Irrit, 2	NDA

Mixtures

· Material does not meet the criteria of a mixture.

Section 4: First-Aid Measures

Description of first aid measures

Inhalation

Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.

In case of contact with substance, immediately flush skin with running water for at Skin

least 20 minutes.

In case of contact with substance, immediately flush eyes with running water for at Eye

least 20 minutes. If eye irritation persists: Get medical advice/attention.

• Rinse mouth. Do not give anything by mouth to an unconscious person. Ingestion

Most important symptoms and effects, both acute and delayed

Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

Notes to Physician All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials

other than this product may have occurred.

Section 5: Fire-Fighting Measures

Extinguishing media

Suitable Extinguishing Media • In case of fire use media as appropriate for surrounding fire.

Unsuitable Extinguishing Media

· No data available

Special hazards arising from the substance or mixture

Unusual Fire and Explosion

Hazards

Hazardous Combustion Products

None

Toxic and irritating vapors may be released if the product melts or burns in a fire.

Advice for firefighters

· Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions Use caution in handling as edges are very sharp. Wear appropriate personal protective

> equipment. · Use normal clean up procedures.

Environmental precautions

· Avoid release to the environment.

Methods and material for containment and cleaning up

Containment/Clean-up

Emergency Procedures

Pick up and place into proper storage.

Measures

Section 7 - Handling and Storage

Precautions for safe handling

Handling Use good safety and industrial hygiene practices. Wear appropriate personal

Preparation Date: 06/April/2017 Format: GHS Language: English (US) Revision Date: 06/April/2017 OSHA HCS 2012 Page 3 of 12

protective equipment. Do not breathe dust. Cut hazard. Ribbon must be handled with care and use cut resistant gloves. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage

 Store in a facility that will protect product from physical damage and/or contamination with foreign material. Store material in a dry place.

Section 8 - Exposure Controls/Personal Protection

Control parameters

		Exposure	Limits/Guidelines	
	Result	ACGIH	NIOSH	OSHA
	Ceilings	Not established	Not established	5 mg/m3 Ceiling (fume)
Manganese	TWAs	0.02 mg/m3 TWA (respirable particulate matter); 0.1 mg/m3 TWA (inhalable particulate matter)	1 mg/m3 TWA (fume)	Not established
	STELs	Not established	3 mg/m3 STEL	Not established
Chromium (7440-47-3)	TWAs	0.5 mg/m3 TWA	0.5 mg/m3 TWA	1 mg/m3 TWA
Silicon (7440-21-3)	TWAs	Not established	10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
Nickel (7440-02-0)	TWAs	1.5 mg/m3 TWA (inhalable particulate matter)	0.015 mg/m3 TWA	1 mg/m3 TWA
Molybdenum (7439-98-7)	TWAs	10 mg/m3 TWA (inhalable particulate matter); 3 mg/m3 TWA (respirable particulate matter)	Not established	Not established

Exposure controls

Engineering Measures/Controls

Adequate ventilation systems as needed to control concentrations of airborne
contaminants below applicable threshold limit values. Ensure that dust handling
systems (such as exhaust ducts, dust collectors, vessels and processing equipment)
are designed in a manner to prevent the escape of dust into the work area (i.e., there
is not leakage from the equipment).

Personal Protective Equipment

Respiratory

 For limited exposure use an N95 dust mask. For prolonged exposure use an airpurifying respirator with high efficiency particulate air (HEPA) filters. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face Skin/Body

Controls

Wear safety glasses.

Environmental Exposure

Wear cut-resistant gloves. Wear long sleeves and/or protective coveralls.

Controls should be engineered to prevent release to the environment, including
procedures to prevent spills, atmospheric release and release to waterways. Follow
best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene NIOSH = National Institute of Occupational Safety and Health OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

Preparation Date: 06/April/2017

Revision Date: 06/April/2017

Page 4 of 12

Format: GHS Language: English (US)

OSHA HCS 2012

Information on Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Shiny gray metallic metal foil with no odor.
Color	Shiny gray.	Odor	No odor.
Odor Threshold	No data available		
General Properties			
Boiling Point	No data available	Melting Point/Freezing Point	965 to 1195 °C(1769 to 2183 °F)
Decomposition Temperature	No data available	рН	No data available
Specific Gravity/Relative Density	7.7 to 8.1 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	No data available		
Volatility		-	
Vapor Pressure	No data available	Vapor Density	No data available
Evaporation Rate	No data available		
Flammability	•	•	•
Flash Point	No data available	UEL	No data available
LEL	No data available	Autoignition	No data available
Flammability (solid, gas)	No data available		
Environmental	•	-	-
Octanol/Water Partition coefficient	No data available		

Section 10: Stability and Reactivity

Reactivity

· No dangerous reaction known under conditions of normal use.

Chemical stability

• Stable under normal temperatures and pressures.

Possibility of hazardous reactions

· Hazardous polymerization will not occur.

Conditions to avoid

· No data available

Incompatible materials

• Product can be attacked by moisture and corrosive materials.

Hazardous decomposition products

• Toxic vapors and metallic fumes may be released if melted in a fire.

Section 11 - Toxicological Information

Information on toxicological effects

		Components
		Acute Toxicity: Ingestion/Oral-Rat TDLo • 200 mg/kg; Nutritional and Gross Metabolic:Gross Metabolite Changes:Weight loss or decreased weight gain; Behavioral:Somnolence (general depressed activity); Multi-dose Toxicity: Ingestion/Oral-Mouse TDLo • 500 mg/kg 5 Day(s)-Intermittent; Lungs, Thorax, or Respiration:Fibrosis, focal (pneumoconiosis); Related to Chronic Data:Death in the Other Multiple Dose data type field; Inhalation-Rabbit TCLo • 1 mg/m³ 6 Hour(s) 13 Week(s)-Intermittent; Lungs, Thorax, or Respiration:Other changes; Lungs, Thorax, or Respiration:Changes in lung weight; Blood:Hemorrhage; Inhalation-Rat TCLo • 0.4
Nickel (0% TO	7440-	mg/m³ 40 Week(s)-Intermittent; Vascular:Thrombosis distant from injection site; Lungs, Thorax, or

100%)	02-0	Respiration:Other changes; Related to Chronic Data:Death in the Other Multiple Dose data type field; Reproductive: Ingestion/Oral-Rat TDLo • 158 mg/kg (multigenerations); Reproductive Effects:Effects on Embryo or Fetus:Fetotoxicity (except death, e.g., stunted fetus); Reproductive Effects:Effects on Embryo or Fetus:Fetal death;
		Tumorigen / Carcinogen: Inhalation-Guinea Pig TCLo • 15 mg/m³ 91 Week(s)-Intermittent; Tumorigenic:Equivocal tumorigenic agent by RTECS criteria; Lungs, Thorax, or Respiration:Tumors; Lungs, Thorax, or Respiration:Bronchiogenic carcinoma
		Impurities, Stabilizers, etc
Iron (0% TO 65%)	7439- 89-6	Acute Toxicity: Ingestion/Oral-Rat LD50 • 750 mg/kg; Blood:Changes in serum composition (e.g., TP, bilirubin cholesterol); Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels:Transaminases; Ingestion/Oral-Child TDLo • 77 mg/kg; Behavioral:Irritability; Gastrointestinal:Nausea or vomiting; Blood:Normocytic anemia
Silicon (0% TO 8%)	7440- 21-3	Acute Toxicity: Ingestion/Oral-Rat LD50 • 3160 mg/kg; Irritation: Eye-Rabbit • 3 mg • Mild irritation
Molybdenum (0% TO 6%)	7439- 98-7	Mutagen: Cytogenetic analysis • Inhalation-Rat • 19500 μg/m³; Reproductive: Ingestion/Oral-Mouse TDLo • 448 mg/kg (multigenerations); Reproductive Effects:Effects on Embryo or Fetus:Fetotoxicity (except death, e.g., stunted fetus); Reproductive Effects:Effects on Embryo or Fetus:Fetal death; Ingestion/Oral-Rat TDLo • 5800 μg/kg (30W pre/1-20D preg); Reproductive Effects:Specific Developmental Abnormalities:Musculoskeletal system; Ingestion/Oral-Rat TDLo • 6050 μg/kg (35W pre); Reproductive
		Effects:Effects on Fertility:Pre-implantation mortality; Reproductive Effects:Effects on Fertility:Post-implantation mortality; Reproductive Effects:Musculoskeletal system
Boron (0% TO 5%)	7440- 42-8	Acute Toxicity: Ingestion/Oral-Rat LD50 • 650 mg/kg; Multi-dose Toxicity: Ingestion/Oral-Rat TDLo • 32 g/kg 30 Day(s)-Intermittent; Brain and Coverings:Other degenerative changes; Cardiac:Other changes; Liver:Liver function tests impaired; Reproductive: Ingestion/Oral-Rat TDLo • 4.95 mg/kg (1-22D preg); Reproductive Effects:Effects on Embryo or Fetus:Fetotoxicity (except death, e.g., stunted fetus); Reproductive Effects:Effects on Embryo or Fetus:Fetal death
Manganese (0% TO 2%)	7439- 96-5	Acute Toxicity: Ingestion/Oral-Rat LD50 • 9 g/kg; Irritation: Eye-Rabbit • 500 mg 24 Hour(s) • Mild irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Mild irritation; Multi-dose Toxicity: Inhalation-Human TCLo • 0.5 mg/m³ 39 Week(s)-Intermittent; Brain and Coverings:Other degenerative changes; Peripheral Nerve and Sensation:Sensory change involving peripheral nerve; Behavioral:Irritability; Inhalation-Monkey TCLo • 0.3 mg/m³ 5 Hour(s) 26 Week(s)-Intermittent; Lungs, Thorax, or
,		Respiration:Fibrosis (interstitial); Immunological Including Allergic:Decrease in cellular immune response; Inhalation-Rat TCLo • 0.7 mg/m³ 24 Hour(s) 22 Week(s)-Continuous; Lungs, Thorax, or Respiration:Fibrosis (interstitial); Immunological Including Allergic:Decrease in cellular immune response

GHS Properties	Classification
Acute toxicity	OSHA HCS 2012 • No data available
Skin corrosion/Irritation	OSHA HCS 2012 • No data available
Serious eye damage/Irritation	OSHA HCS 2012 • No data available
Skin sensitization	OSHA HCS 2012 • Skin Sensitizer 1A
Respiratory sensitization	OSHA HCS 2012 • Respiratory Sensitizer 1B
Aspiration Hazard	OSHA HCS 2012 • No data available
Carcinogenicity	OSHA HCS 2012 • Carcinogenicity 2
Germ Cell Mutagenicity	OSHA HCS 2012 • No data available
Toxicity for Reproduction	OSHA HCS 2012 • Toxic to Reproduction 2
STOT-SE	OSHA HCS 2012 • No data available
STOT-RE	OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 2

Potential Health Effects

Inhalation

Acute (Immediate)

 Exposure to dust may cause irritation. Processes such as cutting, grinding, crushing, or impact may result in generation of excessive amounts of airborne dusts in the workplace. Nuisance dust may affect the lungs but reactions are typically reversible.

Chronic (Delayed)

Chronic effects such as rhinitis, sinusitis, nasal septal perforations and asthma have been reported in nickel refinery and nickel plating workers. Some researchers reported pulmonary changes with fibrosis in workers handling nickel dust. Long term inhalation exposure to metallic nickel caused mucosal damage and inflammatory reaction, sometimes accompanied by slight fibrosis, was observed in rabbits after high level exposure to nickel graphite dust. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin

Acute (Immediate)

Handling of sharp edges may cause cuts. Exposure to dust may cause mechanical irritation. May cause skin sensitization. Symptoms include redness, and skin rash.

Chronic (Delayed)

No data available

Acute (Immediate)

 Exposure to dust may cause mechanical irritation. Excessive concentrations of nuisance dust in the workplace may reduce visibility and may cause unpleasant deposits in eyes.

Chronic (Delayed)

No data available

Ingestion

Acute (Immediate)

 Excessive concentrations of nuisance dust in the workplace may cause mechanical irritation to mucous membranes.

Chronic (Delayed)

Carcinogenic Effects

No data available

Repeated and prolonged exposure may cause cancer. Nickel and nickel compounds have caused cancer in laboratory animals and should be treated as 'possible' carcinogens. At present there is no reliable evidence that nickel metal has caused cancer in humans.

		Carcinogenic Effects	
	CAS	IARC	NTP
Nickel	7440-02-0	Group 2B-Possible Carcinogen	Reasonably Anticipated to be Human Carcinogen
Nickel as Nickel compounds	NDA	Group 1-Carcinogenic	Known Human Carcinogen

Reproductive Effects

Repeated and prolonged exposure may cause reproductive effects.

Key to abbreviations

LD = Lethal Dose

TC = Toxic Concentration

TD = Toxic Dose

Section 12 - Ecological Information

Toxicity

Non-mandatory section - information not compiled for this reason.

Persistence and degradability

Non-mandatory section - information not compiled for this reason.

Bioaccumulative potential

· Non-mandatory section - information not compiled for this reason.

Mobility in Soil

Preparation Date: 06/April/2017 Revision Date: 06/April/2017 OSHA HCS 2012 Page 7 of 12

• Non-mandatory section - information not compiled for this reason.

Other adverse effects

• Non-mandatory section - information not compiled for this reason.

Section 13 - Disposal Considerations

Waste treatment methods

Product waste

Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA

Special precautions for user • None specified.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

Section 15 - Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture SARA Hazard Classifications • Acute, Chronic

		Inventory
Component	CAS	TSCA
Boron	7440-42-8	Yes
Chromium	7440-47-3	Yes
Iron	7439-89-6	Yes
Manganese	7439-96-5	Yes
Molybdenum	7439-98-7	Yes
Nickel	7440-02-0	Yes
Silicon	7440-21-3	Yes

United States

Nickel	7440-02-0	Not Listed
Chromium	7440-47-3	Not Listed
Manganese	7439-96-5	Not Listed
Molybdenum	7439-98-7	Not Listed
Silicon	7440-21-3	Not Listed
ron	7439-89-6	Not Listed
Boron	7440-42-8	Not Listed

U.S OSHA - Specifically Regulated Chemicals • Nickel	7440-02-0	Not Listed
• Chromium	7440-47-3	Not Listed Not Listed
Manganese	7439-96-5	Not Listed Not Listed
Molybdenum	7439-90-3 7439-98-7	Not Listed
• Silicon	7440-21-3	Not Listed
• Iron	7439-89-6	Not Listed
• Boron	7439-69-6 7440-42-8	Not Listed Not Listed
• BOIOII	7440-42-0	Not Listed
Environment		
U.S CAA (Clean Air Act) - 1990 Hazardous Air Pollutants		
• Nickel	7440-02-0	Not Listed
• Chromium	7440-47-3	Not Listed
Manganese	7439-96-5	Not Listed
Molybdenum	7439-98-7	Not Listed
• Silicon	7440-21-3	Not Listed
• Iron	7439-89-6	Not Listed
• Boron	7440-42-8	Not Listed
U.S. CEDCI A/SABA Hazardous Substances and their Penertable Qua	ntitios	
U.S CERCLA/SARA - Hazardous Substances and their Reportable Qual	7440-02-0	100 lb final RQ (no reporting or releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm); 45.4 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal
• Chromium	7440-47-3	pieces of the solid metal released is >100 µm) 5000 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm); 2270 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm)
Manganese	7439-96-5	Not Listed
• Molybdenum	7439-98-7	Not Listed
• Silicon	7440-21-3	Not Listed
• Iron	7439-89-6	Not Listed
• Boron	7440-42-8	Not Listed
J.S CERCLA/SARA - Radionuclides and Their Reportable Quantities		
• Nickel	7440-02-0	Not Listed
Chromium	7440-47-3	Not Listed
Manganese	7439-96-5	Not Listed
Molybdenum	7439-98-7	Not Listed
• Silicon	7440-21-3	Not Listed Not Listed
• Iron	7440-21-3	Not Listed
• Boron	7440-42-8	Not Listed

J.S CERCLA/SARA - Section 302 Extremely Hazardous	Substances EPCRA RQs	
• Nickel	7440-02-0	Not Listed
Chromium	7440-47-3	Not Listed
Manganese	7439-96-5	Not Listed
Molybdenum	7439-98-7	Not Listed
• Silicon	7440-21-3	Not Listed
• Iron	7439-89-6	Not Listed
• Boron	7440-42-8	Not Listed
J.S CERCLA/SARA - Section 302 Extremely Hazardous	Substances TPQs	
Nickel	7440-02-0	Not Listed
Chromium	7440-47-3	Not Listed
Manganese	7439-96-5	Not Listed
Molybdenum	7439-98-7	Not Listed
• Silicon	7440-21-3	Not Listed
• Iron	7439-89-6	Not Listed
• Boron	7440-42-8	Not Listed
J.S CERCLA/SARA - Section 313 - Emission Reporting		
Nickel	7440-02-0	0.1 % de minimis concentration
		1.0 % de minimis
• Chromium	7440-47-3	concentration
	7440-47-3 7439-96-5	
Manganese		concentration 1.0 % de minimis
ManganeseMolybdenum	7439-96-5	concentration 1.0 % de minimis concentration
ManganeseMolybdenumSilicon	7439-96-5 7439-98-7	concentration 1.0 % de minimis concentration Not Listed
 Chromium Manganese Molybdenum Silicon Iron Boron 	7439-96-5 7439-98-7 7440-21-3	concentration 1.0 % de minimis concentration Not Listed Not Listed
ManganeseMolybdenumSiliconIron	7439-96-5 7439-98-7 7440-21-3 7439-89-6 7440-42-8	concentration 1.0 % de minimis concentration Not Listed Not Listed Not Listed
 Manganese Molybdenum Silicon Iron Boron J.S CERCLA/SARA - Section 313 - PBT Chemical Listing 	7439-96-5 7439-98-7 7440-21-3 7439-89-6 7440-42-8	concentration 1.0 % de minimis concentration Not Listed Not Listed Not Listed
 Manganese Molybdenum Silicon Iron Boron J.S CERCLA/SARA - Section 313 - PBT Chemical Listing Nickel 	7439-96-5 7439-98-7 7440-21-3 7439-89-6 7440-42-8	concentration 1.0 % de minimis concentration Not Listed Not Listed Not Listed Not Listed
 Manganese Molybdenum Silicon Iron Boron I.S CERCLA/SARA - Section 313 - PBT Chemical Listing Nickel Chromium 	7439-96-5 7439-98-7 7440-21-3 7439-89-6 7440-42-8	concentration 1.0 % de minimis concentration Not Listed Not Listed Not Listed Not Listed Not Listed
 Manganese Molybdenum Silicon Iron Boron I.S CERCLA/SARA - Section 313 - PBT Chemical Listing Nickel Chromium Manganese 	7439-96-5 7439-98-7 7440-21-3 7439-89-6 7440-42-8	concentration 1.0 % de minimis concentration Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed
 Manganese Molybdenum Silicon Iron Boron J.S CERCLA/SARA - Section 313 - PBT Chemical Listing Nickel Chromium Manganese Molybdenum 	7439-96-5 7439-98-7 7440-21-3 7439-89-6 7440-42-8 7440-02-0 7440-47-3 7439-96-5	concentration 1.0 % de minimis concentration Not Listed
 Manganese Molybdenum Silicon Iron Boron 	7439-96-5 7439-98-7 7440-21-3 7439-89-6 7440-42-8 7440-02-0 7440-47-3 7439-96-5 7439-98-7	concentration 1.0 % de minimis concentration Not Listed

United States - California

Environment U.S California - Proposition 65 - Carcinogens List		
• Nickel	7440-02-0	carcinogen, 10/1/1989 (metallic)
Chromium	7440-47-3	Not Listed
Manganese	7439-96-5	Not Listed
Molybdenum	7439-98-7	Not Listed
• Silicon	7440-21-3	Not Listed
• Iron	7439-89-6	Not Listed
• Boron	7440-42-8	Not Listed
U.S California - Proposition 65 - Developmental Toxicity		
Nickel	7440-02-0	Not Listed
Chromium	7440-47-3	Not Listed
Manganese	7439-96-5	Not Listed

Montage Manage Manage Materials Manage Manage Materials Manage Manage Materials Manage Manage Materials Manage Manage Materials Manage Manage Manage Materials Manage Manage Materials Manage Manage Materials Manage Manage Materials Managee Materials Materials Managee Materials Materials Managee Materials Materia	- Mahuhdanum	7420.00.7	Not Listed	
• Iron 7439-89-6 Not Listed • Boron 7440-42-8 Not Listed U.S California - Proposition 65 - Maximum Allowable Dose Levels (MADL) 7440-02-0 Not Listed • Nickel 7440-02-0 Not Listed • Chromium 7439-98-5 Not Listed • Manganese 7439-98-5 Not Listed • Molybdenum 7439-98-7 Not Listed • Iron 7439-89-8 Not Listed • Boron 7440-21-3 Not Listed U.S California - Proposition 65 - No Significant Risk Levels (NSRL) Volume Volume • Nickel 7440-02-0 Not Listed • Normium 7440-47-3 Not Listed • Manganese 7439-98-7 Not Listed • Molybdenum 7439-98-7 Not Listed • Iron 7439-89-7 Not Listed • Boron 7440-21-3 Not Listed • Nickel 7440-22-8 Not Listed • Nickel 7440-42-8 Not Listed • Nickel 7440-42-8 Not Listed	Molybdenum Silican	7439-98-7	Not Listed	
Boron 7440-42-8 Not Listed U.S California - Proposition 65 - Maximum Allowable Dose Levels (MADL) 7440-02-0 Not Listed • Nickel 7440-47-3 Not Listed • Chromium 7439-98-5 Not Listed • Manganese 7439-98-7 Not Listed • Molybdenum 7439-98-7 Not Listed • Iron 7439-89-6 Not Listed • Boron 7440-22-8 Not Listed U.S California - Proposition 65 - No Significant Risk Levels (NSRL) 7440-02-0 Not Listed • Nickel 7440-02-0 Not Listed Not Listed • Manganese 7439-96-5 Not Listed Not Listed • Molybdenum 7449-92-7 Not Listed Not Listed • Iron 7449-92-8 Not Listed Not Listed • Boron 7440-42-8 Not Listed • Nickel 7440-02-0 Not Listed • Nickel 7440-02-0 Not Listed • Nickel 7449-98-5 Not Listed • Manganese 7439-98-5 Not Listed				
U.S California - Proposition 65 - Maximum Allowable Dose Levels (MADL) - Nickel - Chromium - 7440-47-3 - Not Listed - Manganese - Molybdenum - 7439-96-5 - Not Listed - Molybdenum - 7439-89-6 - Not Listed - Not Listed - Molybdenum - 7439-89-6 - Not Listed - Boron - 7440-42-13 - Not Listed - Boron - 7440-42-8 - Not Listed - Boron - 7440-42-8 - Not Listed				
Nickel 7440-02-0 Not Listed Chromium 7440-47-3 Not Listed Manganese 7439-96-5 Not Listed Molybdenum 7439-98-7 Not Listed Silicon 7440-21-3 Not Listed Iron 7439-89-6 Not Listed Boron 7440-42-8 Not Listed U.S California - Proposition 65 - No Significant Risk Levels (NSRL) Nickel Not Listed - Nickel 7440-42-8 Not Listed - Chromium 7440-47-3 Not Listed - Molybdenum 7439-96-5 Not Listed - Silicon 7440-21-3 Not Listed - Iron 7439-89-6 Not Listed - Boron 7440-21-3 Not Listed - Workel 7440-22-8 Not Listed - Nickel 7440-42-8 Not Listed - Nickel 7440-47-3 Not Listed - Molybdenum 7439-98-7 Not Listed - Molybdenum 7439-98-7 Not Listed - Molybdenum 7439-98-7 N	• Bolou	7440-42-8	Not Listed	
 Chromium Manganese Molybdenum 7439-96-5 Not Listed Molybdenum 7439-98-7 Not Listed Silicon 1740-21-3 Not Listed Boron 7439-89-6 Not Listed Boron 7440-42-8 Not Listed W.S California - Proposition 65 - No Significant Risk Levels (NSRL) Nickel Chromium 7440-02-0 Not Listed Manganese 7439-96-5 Not Listed Molybdenum 7440-21-3 Not Listed Iron 7439-89-6 Not Listed Boron 7440-42-8 Not Listed Not Listed Wolk Listed Not Listed Manganese 7439-96-5 Not Listed Molybdenum 7439-98-7 Not Listed Not Listed Iron 7439-98-7 Not Listed Iron 7440-21-3 Not Listed Iron 7439-98-6 Not Listed Not Listed Iron 7440-21-3 Not Listed Iron 7440-21-3 Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed<td>U.S California - Proposition 65 - Maximum Allowable Dose Levels (MAI</td><td>DL)</td><td></td><td></td>	U.S California - Proposition 65 - Maximum Allowable Dose Levels (MAI	DL)		
• Manganese 7439-96-5 Not Listed • Molybdenum 7439-98-7 Not Listed • Silicon 7440-21-3 Not Listed • Iron 7439-89-6 Not Listed • Boron 7440-42-8 Not Listed U.S California - Proposition 65 - No Significant Risk Levels (NSRL) 7440-02-0 Not Listed • Nickel 7440-47-3 Not Listed • Manganese 7439-96-5 Not Listed • Molybdenum 7439-98-7 Not Listed • Iron 7439-89-6 Not Listed • Boron 7439-89-6 Not Listed • Boron 7440-42-8 Not Listed U.S California - Proposition 65 - Reproductive Toxicity - Female 7440-42-8 Not Listed • Mickel 7440-21-3 Not Listed • Molybdenum 7439-89-7 Not Listed • Million 7439-89-8 Not Listed • Million 7439-89-8 Not Listed • Iron 7439-89-6 Not Listed • Iron 7439-89-6 Not Listed • Iron 7439-89-6 Not Listed • Iro	Nickel	7440-02-0	Not Listed	
• Molybdenum 7439-98-7 Not Listed • Silicon 7440-21-3 Not Listed • Iron 7439-89-6 Not Listed • Boron 7440-42-8 Not Listed U.S California - Proposition 65 - No Significant Risk Levels (NSRL) 7440-02-0 Not Listed • Nickel 7440-47-3 Not Listed • Manganese 7439-96-5 Not Listed • Molybdenum 7439-98-6 Not Listed • Iron 7439-89-6 Not Listed • Boron 7440-42-8 Not Listed U.S California - Proposition 65 - Reproductive Toxicity - Female Not Listed • Nickel 7440-02-0 Not Listed • Manganese 7439-96-5 Not Listed • Molybdenum 7439-98-7 Not Listed • Milcon 7439-98-6 Not Listed • Silicon 7440-21-3 Not Listed • Iron 7439-98-6 Not Listed • Boron 7440-21-3 Not Listed • Boron 7440-22-8 Not Listed	Chromium	7440-47-3	Not Listed	
• Silicon 7440-21-3 Not Listed • Iron 7439-89-6 Not Listed • Boron 7440-42-8 Not Listed U.S California - Proposition 65 - No Significant Risk Levels (NSRL) 7440-02-0 Not Listed • Nickel 7440-47-3 Not Listed • Chromium 7439-96-5 Not Listed • Molybdenum 7439-98-7 Not Listed • Silicon 7440-21-3 Not Listed • Iron 7439-89-6 Not Listed • Boron 7440-42-8 Not Listed U.S California - Proposition 65 - Reproductive Toxicity - Female Not Listed • Nickel 7440-02-0 Not Listed • Manganese 7439-96-5 Not Listed • Molybdenum 7439-96-5 Not Listed • Molybdenum 7440-21-3 Not Listed • Silicon 7440-21-3 Not Listed • Iron 7439-89-6 Not Listed • Iron 7440-42-8<	Manganese	7439-96-5	Not Listed	
• Iron 7439-89-6 Not Listed • Boron 7440-42-8 Not Listed U.S California - Proposition 65 - No Significant Risk Levels (NSRL) • Nickel 7440-02-0 Not Listed • Chromium 7440-47-3 Not Listed • Manganese 7439-96-5 Not Listed • Molybdenum 7439-98-7 Not Listed • Iron 7439-89-6 Not Listed • Boron 7440-21-3 Not Listed • Iron 7439-89-6 Not Listed • Not Listed • Nore Proposition 65 - Reproductive Toxicity - Female • Nickel 7440-02-0 Not Listed • Manganese 7439-96-5 Not Listed • Manganese 7439-96-5 Not Listed • Manganese 7439-96-5 Not Listed • Molybdenum 7439-89-6 Not Listed • Molybdenum 7439-89-6 Not Listed • Molybdenum 7439-89-7 Not Listed • Molybdenum 7439-89-8 Not Listed • Silicon 7440-21-3 Not Listed • Boron 7440-42-8 Not Listed • Boron 7440-42-8 Not Listed • Nore Proposition 65 - Reproductive Toxicity - Male • Nickel 7440-02-0 Not Listed • Not Listed • Nore Proposition 65 - Reproductive Toxicity - Male • Nickel 7440-02-0 Not Listed • Not Listed	Molybdenum	7439-98-7	Not Listed	
• Boron 7440-42-8 Not Listed U.S California - Proposition 65 - No Significant Risk Levels (NSRL) • Not Listed • Nickel 7440-02-0 Not Listed • Chromium 7440-47-3 Not Listed • Manganese 7439-96-5 Not Listed • Molybdenum 7439-98-7 Not Listed • Silicon 7440-21-3 Not Listed • Boron 7439-89-6 Not Listed • Boron 7440-42-8 Not Listed U.S California - Proposition 65 - Reproductive Toxicity - Female ** Not Listed • Chromium 7440-47-3 Not Listed • Manganese 7439-96-5 Not Listed • Molybdenum 7439-98-7 Not Listed • Silicon 7440-21-3 Not Listed • Iron 7439-89-6 Not Listed • Boron 7440-42-8 Not Listed • Not Listed Not Listed • Nickel 7440-02-0 Not Listed • Nickel 7440-02-0 Not Listed • Nickel 7440-47-3 Not Listed	• Silicon	7440-21-3	Not Listed	
U.S California - Proposition 65 - No Significant Risk Levels (NSRL) Nickel	• Iron	7439-89-6	Not Listed	
 Nickel Chromium 7440-02-0 Not Listed Chromium 7440-47-3 Not Listed Manganese 7439-96-5 Not Listed Molybdenum 7439-98-7 Not Listed Silicon Iron Boron 7440-21-3 Not Listed Boron Not Listed Not Listed Chromium - Proposition 65 - Reproductive Toxicity - Female Nickel Chromium Manganese Molybdenum Silicon Iron Silicon Iron Boron T440-21-3 Not Listed Not Listed Molybdenum Fay3-98-7 Not Listed Silicon Iron Boron T440-21-3 Not Listed Iron Boron T440-42-8 Not Listed 	• Boron	7440-42-8	Not Listed	
 Nickel Chromium 7440-02-0 Not Listed Chromium 7440-47-3 Not Listed Manganese 7439-96-5 Not Listed Molybdenum 7439-98-7 Not Listed Silicon Iron Boron 7440-21-3 Not Listed Boron Not Listed Not Listed Chromium - Proposition 65 - Reproductive Toxicity - Female Nickel Chromium Manganese Molybdenum Silicon Iron Silicon Iron Boron T440-21-3 Not Listed Not Listed Molybdenum Fay3-98-7 Not Listed Silicon Iron Boron T440-21-3 Not Listed Iron Boron T440-42-8 Not Listed 	U.S California - Proposition 65 - No Significant Risk Levels (NSRL)			
 Chromium Manganese Molybdenum Silicon Iron Boron Wot Listed Not Listed Chromium Manganese Molybdenum Silicon Iron Silicon Iron Pado-2-1 Not Listed 		7440-02-0	Not Listed	
 Manganese Molybdenum Silicon Iron Boron Vay-98-6 Not Listed Not Listed Hot Listed Not Listed Chromium - Proposition 65 - Reproductive Toxicity - Female Nickel - 7440-02-0 Not Listed Chromium - 7449-96-5 Not Listed Manganese - 7439-96-5 Not Listed Molybdenum - 7439-98-7 Not Listed Silicon - 7440-21-3 Not Listed Iron - 7439-89-6 Not Listed Boron - 7440-42-8 Not Listed Boron - 7440-42-8 Not Listed Not Listed 				
 Molybdenum Silicon Iron Boron V.S California - Proposition 65 - Reproductive Toxicity - Female Nickel Manganese Molybdenum Molybdenum Molybdenum Silicon Molybdenum Silicon Iron Silicon Iron Boron Molybdenum Silicon Iron Boron T440-21-3 Not Listed 				
 Silicon Iron Boron U.S California - Proposition 65 - Reproductive Toxicity - Female Nickel Chromium Manganese Molybdenum Silicon Iron Iron Boron T440-02-0 Not Listed Not Listed Manganese Molybdenum Silicon Iron Boron T440-21-3 Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed Proposition 65 - Reproductive Toxicity - Male Nickel Not Listed 				
 Iron Boron 7439-89-6 Not Listed Not Listed U.S California - Proposition 65 - Reproductive Toxicity - Female Nickel Chromium Manganese Molybdenum Silicon Iron Boron T440-21-3 Not Listed Iron Boron T439-89-6 Not Listed 	-			
• Boron 7440-42-8 Not Listed U.S California - Proposition 65 - Reproductive Toxicity - Female • Not Listed • Nickel 7440-02-0 Not Listed • Chromium 7440-47-3 Not Listed • Manganese 7439-96-5 Not Listed • Molybdenum 7439-98-7 Not Listed • Silicon 7440-21-3 Not Listed • Iron 7439-89-6 Not Listed • Boron 7440-42-8 Not Listed U.S California - Proposition 65 - Reproductive Toxicity - Male Not Listed Not Listed • Nickel 7440-02-0 Not Listed • Chromium 7440-47-3 Not Listed				
 Nickel Chromium Manganese Molybdenum Silicon Iron Boron Wot Listed Not Listed 				
 Nickel Chromium Manganese Molybdenum Silicon Iron Boron Wot Listed Not Listed 	II.S California - Proposition 65 - Reproductive Toxicity - Female			
 Chromium Manganese Molybdenum Silicon Iron Boron Wot Listed Not Listed Ohromium 		7440-02-0	Not Listed	
 Manganese Molybdenum Silicon Iron Boron Wot Listed Not Listed Nickel Chromium 7440-02-0 Not Listed Not Listed Not Listed 				
 Molybdenum Silicon Iron Boron Vadu-21-3 Not Listed Nickel Chromium 7440-02-0 Not Listed Not Listed Not Listed 				
 Silicon Iron Boron 7439-89-6 Not Listed Hot Listed Not Listed Not Listed Not Listed Not Listed Not Listed Nickel Chromium 7440-02-0 Not Listed Not Listed Not Listed 				
 Iron Boron U.S California - Proposition 65 - Reproductive Toxicity - Male Nickel Chromium Not Listed Not Listed Not Listed Not Listed Not Listed 				
Boron 7440-42-8 Not Listed U.S California - Proposition 65 - Reproductive Toxicity - Male Nickel Through Not Listed Chromium 7440-42-8 Not Listed				
 Nickel Chromium 7440-02-0 Not Listed Not Listed 				
 Nickel Chromium 7440-02-0 Not Listed Not Listed 	U.S California - Proposition 65 - Reproductive Toxicity - Male			
Chromium 7440-47-3 Not Listed		7440-02-0	Not Listed	
1				
Molybdenum 7439-98-7 Not Listed	_			
• Silicon 7440-21-3 Not Listed				
• Iron 7439-89-6 Not Listed				
• Boron 7440-42-8 Not Listed				
		0		

Other Information

 WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Revision Date • 06/April/2017

Last Revision Date • 06/April/2017

Preparation Date • 06/April/2017

Disclaimer/Statement of Liability

• All information appearing herein concerning Aimtek products are based on data believed to be accurate and reliable. The information is provided as guidance for safe

transportation, handling, use, processing, storage, disposal and release. It is not considered a warranty or quality specification. Since the actual use is determined by the user, it is the user's responsibility to determine the suitability of the product for its use and to adopt appropriate safety precautions as necessary.

Key to abbreviationsNDA = No Data Available

Preparation Date: 06/April/2017

Revision Date: 06/April/2017

Page 12 of 12

Format: GHS Language: English (US)
OSHA HCS 2012