

MATERIAL SAFETY DATA SHEET



LOVEJOY TOOL COMPANY, INC.
133 MAIN STREET
PO BOX 949
SPRINGFIELD, VT 05156

Section 1	Product Information	Rev. Level: A	Page 1 of 5
------------------	----------------------------	----------------------	--------------------

Trade Name and Synonyms: Alloy Steel

Chemical Family: Metals

Formula: Not applicable

Section 2	Product Description and Hazardous Ingredients/Identify Information
------------------	---

See Chart for Listing (page 5)

Section 3	Physical Data
------------------	----------------------

Melting Point F (C): Greater than 2800 (1540)

Vapor Pressure: Not applicable

Vapor Density (Air = 1): Not applicable

Solubility in Water: Negligible

Appearance and Odor: Grayish to silvery odorless sheet, strip, plate, bar, structural shapes, pipe and tubing.

Specific Gravity (H₂O = 1): Greater than 7

% Volatile by Volume (%): Not applicable

Evaporation Rate: Not applicable

Section 4	Fire and Explosion Hazard Data
------------------	---------------------------------------

Flash Point F (C): Not applicable

Extinguishing Media: Use methods applicable to surrounding area.

Special Fire Fighting Procedures: Use self-contained breathing apparatus for protection against degradation products and fire fighting technique or agent(s) applicable to surrounding materials.

Flammable Limits: Not applicable

Unusual Fire and Explosion Hazards: None

Section 5	Health Hazard Data
------------------	---------------------------

Applicable Statutory or Recommended Occupational Exposure Limits: No Threshold Limit Value (TLV) or Permissible Exposure Limit (PEL) exists for steel. Steel products in the natural state do not present an inhalation, ingestion or contact hazard. However, operations such as burning, welding, sawing, brazing, and grinding may result in the following effects if exposures exceed permissible limits as listed in Section 2 of the individual constituents.

Effects of Overexposure: Acute-Dust or fume may cause irritation to the eyes, nose, or throat; leave a metallic taste in the mouth; result in metal fume fever; or produce flu-like symptoms.



Steps to be taken in Case Material is Released or Spilled: Not applicable

Waste Disposal Method: This material may be reclaimed for reuse.

Section 8 **Special Protection Information**

If operations are such that atmospheric levels of contaminants exceed prescribed limits, provide local exhaust ventilation and/or adequate respiratory protection. Consult your regional codes or code of Federal Regulations, Title 29, Part 1910.252, Welding, Cutting and Brazing, 1910.134, Respiratory

Protection, and 1910-Subpart Z, Toxic and Hazardous Substances.

Section 9 **Special Precautions**

Precautions to be taken in Handling and Storing: Not applicable

Other Precautions: Not applicable

Section 10 **Super fund Amendments and Reauthorization Act of 1986 (S.A.R.A.)**

SARA Title III Section 313 and 40 CFR Part 372: The chemicals identified by (*) in Section 2 denote a toxic chemical or chemicals subject to reporting requirements of Section 313 of Title III, and 40 CFR Part 372.

Section 11 **California Proposition 65**

One or more of the alloys listed on this sheet contains a material known to the state of California to cause cancer or reproductive toxicity. These are:

<u>Material</u>	<u>Listed Effect</u>
Nickel	Cancer
Lead	Reproductive Toxicity

Section 12 **Disclaimer**

The information contained herein is based upon data provided by manufacturers and suppliers of raw materials used in the manufacture of alloy steel. The information is offered in good faith as accurate and correct, but no representations, guarantees, or warranties of any kind are made as to its accuracy or completeness, suitability for particular applications, hazards connected with the use of the product, or the results to be obtained from the use of thereof. User assumes all risk and liability of any use or handling of any material beyond Lovejoy's control. Variations in methods, conditions, equipment used to store, handle, or process the material, and hazards connected with the use of the product are solely the responsibility of the user and remain at its sole discretion.

When applicable, the products described in this MSDS are considered to be "articles" within the meaning of Title 29 of the Code of Federal Regulations, Section 1910.1200 et seq. This MSDS is intended to be used solely for the purpose of satisfying informational request made pursuant to that requirement. It is not intended to pre-empt, replace, or expand the terms contained in the Lovejoy Tool Co., Inc. Conditions of Sale.



Product Description

Rev. Level: A

Page 5 of 5

Non-resulfurized Carbon Steel: Vanadium Bearing **AISI Grade/Trade Name** 1005-1095

Alloying Elements

Iron	*Maganese	Carbo	*Aluminum	*Chromiu	*Copper	Molybdenum	*Nickel	Phosphorou	Silicon	Sulfur	Vanadium
	e	n		m				s			
>95	<1.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Standard Alloy Steel: Molybdenum and Chromium **AISI Grade/Trade Name** 4118-4181

Alloying Elements

Iron	*Maganese	Carbo	*Aluminum	*Chromiu	*Copper	Molybdenum	Phosphorou	Silicon	Sulfur
	e	n		m			s		
>95	<1.0	<0.7	<0.5	<1.1	<0.5	<0.5	<0.1	<0.3	<0.1

Standard Alloy Steel: Molybdenum, Chromium and Nickel **AISI Grade/Trade Name** 4320-4340

Alloying Elements

Iron	*Maganese	Carbo	*Aluminum	*Chromiu	*Copper	Molybdenum	*Nickel	Phosphorou	Silicon	Sulfur
	e	n		m				s		
>95	<1.0	<0.5	<0.5	<1.0	<0.5	<0.3	<2.0	<0.1	<0.3	<0.1

Standard Alloy Steel: Molybdenum, Chromium and Nickel **AISI Grade/Trade Name** 8613-8822

Alloying Elements

Iron	*Maganese	Carbo	*Aluminum	*Chromiu	*Copper	Molybdenum	*Nickel	Phosphorou	Silicon	Sulfur
		n		m				s		
>95	<1.0	<0.6	<0.5	<0.6	<0.5	<0.3	<0.7	<0.1	<0.3	<0.1