# BRUNSWICK

 Supplier
 Brunswick Steel

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## Material Safety Data Sheet

Section 1

**Product Identification & Use** 

Material Name	STAINLESS SPECIALTY STEEL		
Address	Includes all sheet products, plate, strip, bar, slab, ingot, and tubular products		
WHMIS Class	D2A, D2B	Material Use	Manufacture of Articles

Section 2

Hazardous Ingredients (all values are maximum and expressed as weight percent)

		T.L.V. (as fume)		Electric Alloy		300, 400 Series
ELEMENT	C.A.S.#	mg/m	Ld50/Lc50 (oral rat)	Steels	<b>Tool Steels</b>	Stainless Steels
Iron	7439-89-6	5	N/A	95	90	80
Chromium	7440-47-3	0.5	N/A	5	25	30
Nickel	7440-02-0	I	9gn-dkg	6	5	35
Molybdenum	7439-98-07	10	N/A	2	5	6
Vanadium	1314-62-1	0.05	N/A	2	5	
Cobalt	7440-48-4	0.75	N/A	0.75	8	1
Manganese	7439-96-5	I	9gmlkg			2.5
Aluminum	7429-90-5	10	N/A	1.5		
Silicon	7440-21-3	10	N/A	2	2.5	
Copper	7440-50-8	0.2	N/A			5

The above ingredient list identifies those components which meet the regulated reporting criteria.

Concentrations represent a maximum for all grades within a category of steel products and must not be interpreted as a specification for a particular grade. May have oil coating (max 2.2g/m2 per side).

Dry lube-mixture of Borate and Carbonate soap lubricants for forming.

Pre-lube-Petroleum based oil coating.

Lube oil-Lubricating protective petroleum based oil.

Vanishing oil-solvent applied petroleum coating leaving a g/m2 per side, wax like coating.

NOTE: Individual coating components are present at values below reporting requirements.

### Section 3

- Physical State: Solid Boiling Point: N/A Density: 7.86 Odour Threshold: N/A Vapour Pressure: N/A
- Odour: N/A Vapour Density: N/A Coefficient Water/Oil Distribution: N/A Boiling Point: N/A

#### **Physical Data**

Evaporation Rate: N/A Freezing Point: 1530 c PH: N/A Appearance: silver grey metallic/blue

Section 4

Fire & Explosion Data

Not applicable

#### Section 5

#### **Reactivity Data**

Not ApplicableChemical Stability: yesIncompatibility to Other Substances: yesContact with acids will release Hydrogen gas.Hazardous Decomposition Products: N/A

Section 6	Toxicological Properties of Material
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• Route of Entry: Prolonged skin contact with coated steel may cause skin irritation in sensitive individuals. Inhalation of metal particulate or elemental oxide fumes generated during welding, burning, grinding or machining may pose acute or chronic effects.

• Acute Exposure: Inhalation of overexposure may cause metal fume fever characterised by fever and hills (flu like symptoms) appears to 6 hours after exposure with no know long term effects.

• Chronic Exposure: Chronic inhalation of metal fume may cause a benign pneumonconconiosis (siderosis) with few or no symptoms. Chronic inhalation of fumes may affect the digestive system, nervous system, respiratory system, muscles and joints.

 Sensitisation to Product: Unknown
 Synergistic Materials: Unknown

 Reproductive Effects: No known effect
 Teratogenicity: No known effect

 Mutagenicity: No known effect
 Carcinogenicity of Material: IARC lists Hexavalent Chromium compounds under its group 1 category.

 Confirmed Human Carcinogen
 NOTE: Iron-welding fume has an exposure limit of 5mg/m3 , welding fume may also contain contaminants from fluxes or welding consumables.

Section 7 Preventive Measures

Personal Protective Equipment: Dependent upon process being performed on material. Each operation must be<br/>addressed for suitable equipment and or engineering controls.Gloves: Leather faced/ cut protectionEyes: Safety glasses or face shield as appropriateFootwear: Safety shoes/ boots where req'dChere: Barrier cream may be used when handlingRespiratory: Approved respiratory protection where applicable.Engineering Controls (eg. Ventilation, enclosures): General or local exhaust ventilation during welding.Leak and Spill Procedures: N/AWater Disposal: N/AStorage Requirements: Keep stored material dry to prevent corrosion.Special Shipping Information: N/A

#### Section 8

First-Aid Measures

Skin: Wash affected area with soap and water. Seek medical attention if irritation persists.

**Eye:** For irritation from any coating material flush eyes with plenty of water. Seek medical attention if irritation persists. **Inhalation:** For overexposure to metal fumes remove to fresh air. Seek medical attention for adverse symtoms. **Ingestion:** N/A

#### Section 9

Preparation Date of MSDS

Prepared by:	Brunswick Steel
Phone Number	1-800-493-8898
Date	February 2016

The information contained is based on the data considered accurate, however, no warranty is expressed or implied regarding the accuracy of these data or the results obtained from the use thereof.