

SECTION 1 - MATERIAL IDENTIFICATION AND USE

Material Name: ALLOY TOOL STEELS
 Generic Name:
 Manufacturer: Atlas Specialty Steels
 Address: One Centre Street
 Welland, Ontario
 L3B 5R7
 Emergency Telephone: (416) 735-5661

Chemical Name: ALLOY TOOL STEELS
 Chemical Family: Not Applicable
 Chemical Formula: Not Applicable

Classification: D2

Health: Fire:
 Reactivity: Specific:

Supplier:
 Address:

Emergency Telephone: (416) 735-5661

Molecular Weight: Not Applicable
 Trade Name/Synonyms: HADFIELD, TOOL STEELS
 Material Use:
 STEEL PRODUCTS

SECTION 2 - HAZARDOUS INGREDIENTS OF MATERIAL

Hazardous Ingredients	Approximate Concentration	C.A.S. N.A. U.N. Numbers	LD50 / LC50 Specify Species & Route	Exposure limits
IRON	90 %	7439-83-6	30 g/kg (rat-oral)	5 mg/M3
CHROMIUM	25	7440-47-3	Not available	0.5 mg/M3
MANGANESE	15	7439-96-5	9 g/kg (rat-oral)	1 mg/M3
COBALT	8	7440-48-4	9 g/kg (rat-oral)	0.05 mg/M3
NICKEL	5	7440-02-0	Not available	1 mg/M3
MOLYBDENUM	5	7439-98-7	Not available	10 mg/M3
VANADIUM	5	1314-62-1	Not available	0.05 mg/M3
SILICON	2.5	7440-21-3	Not available	10 mg/M3

Note: 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.

SECTION 3 - PHYSICAL DATA FOR MATERIAL

Physical State: Solid
 Specific Gravity: 7.6 - 7.8
 Odour Threshold (ppm): Not Applicable
 Odour and Appearance:
 SILVER/GREY METALLIC

Vapour Pressure(mm/Hg): Not Applicable
 Vapour Density (Air=1): Not Applicable
 Evaporation Rate: Not Applicable
 Boiling Pt. (C): Not Applicable
 Freezing Pt. (C): Not Applicable

Solubility in Water (20oC): Not Applicable
 Percent Volatile, By Volume: Not Applicable
 PH: N/Ap
 Density (g/ml): Not Applicable
 Coefficient to Water/
 Oil Distribution: Not Applicable

SECTION 4 - FIRE AND EXPLOSION:

Flammability: No Conditions:
 Means of Extinction: Not Applicable

Special Procedures:

Flashpoint (C) & Method: Not Applicable
 Upper Explosion Limit (% by volume): Not Applicable
 Lower Explosion Limit (% by volume): Not Applicable
 Auto Ignition Temperature (C): N/Ap
 TOG Flammability Classification:

Hazardous Combustion Products: Not Applicable
 Chemical Sensitivity to Impact: Not Applicable
 Rate of Burning: Not Applicable
 Explosion Power: Not Applicable
 Sensitivity to Static Discharge: Not Applicable

SECTION 5 - REACTIVITY DATA

Chemical Stability: Yes Conditions:

Incompatibility to other Substances: Yes Substances: CONTACT WITH MINERAL ACIDS WILL RELEASE HYDROGEN GAS

Reactivity Under What Conditions: Not Applicable

Hazardous Decomposition Products: Not Applicable



This is applicable to all grades of Steel
the same info is on the back of all MSDS's for ATLAS

ALLOY ENGINEERING STEELS

Atlas Specialty Steels

Material Safety Data Sheet

Central

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Material Name: ALLOY ENGINEERING STEELS

STAINLESS
Carbon
Alloy Tools

SECTION 6 - TOXICOLOGICAL PROPERTIES OF PRODUCT

Route of Entry Skin Contact: Yes Skin Absorption: Eye Contact: Yes
Inhalation Acute: Yes Inhalation Chronic: Yes Ingestion:

Effects of Acute Exposure: None to shipped product. Welding or burning will generate metal fumes which can cause irritation to eyes, nose, and throat.

Effects of Chronic Exposure: None to shipped product. Chronic inhalation overexposure to metal fume (ie. iron oxide) may cause siderosis.

LD50 of Product (Species & Route): 9 G/KG (oral-rat)
LC50 of Product (Species): Not Available
Irritancy of Product: Not Applicable

Sensitization to Product: No known effects
Exposure Limits of Product: See Section 2
Synergistic Materials: No known effects

Carcinogenicity: Yes Reproductive Effects: Teratogenicity: Mutagenicity:

SECTION 7 - PREVENTIVE MEASURES

Personal Protective Equipment: Depends on the process being performed on the material. Each operation must be assessed.

Gloves: See PPE. Respiratory: See PPE. Eye: See PPE. Footwear: See PPE.
Clothing: See PPE. Other:

Engineering Controls: Adequate ventilation during welding, burning or grinding.
Leaks & Spills: Not Applicable

Waste Disposal:
Handling Procedures & Equipment: Not Applicable
Storage Requirements: Not Applicable
Special Shipping Information: Not Applicable

SECTION 8 - FIRST AID MEASURES

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

Eye: For irritation from coating materials, flush eyes with plenty of water while holding eyelids open. Seek Medical attention if irritation persists.

Inhalation: For overexposure to metal fumes, remove to fresh air.
Seek medical attention.

Ingestion: Not Applicable

General Advice: Some of the steel grades may have an oil coating or lime coating.
Use impervious gloves when handling to prevent skin irritation.

SECTION 9 - PREPARATION DATE OF M.S.D.S.

Additional Information: Certain nickel and chromium compounds have been listed by IARC as nasal and lung carcinogens.

Sources Used:

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