SAFETY DATA SHEET

Section 1: Identification

1.1 Product identifier

Product Name: **Carbon Steel Cut wire shot CCWC, CCW**

1.2 Recommended use of the chemical and restriction of use

Solid carbon cut wire products have many uses including, shot blasting, tumbling, etc.

1.3 Details of the supplier of the product information

Supplier: Guyson Corporation of U.S.A.
13 Grande Blvd.
Saratoga Springs, NY 12866
www.guyson.com
info@guyson.com

1.4 Telephone number: 518-587-7894

Section 2: Hazard Identification

2.1 Classification

Carbon steel metal is considered an article and NOT hazardous in solid form. However, certain processes Such as blasting, tumbling, cutting, grinding, melting, and welding could result in some hazardous material Being emitted. The following classification information is for the hazardous elements which may be emitted During these processes.

2.2 Label elements

Signal word Not applicable
Hazard statements & symbols Not applicable

Precautionary Statements:

PREVENTION	FIRST AID RESPONSE
Do not breath dust/fume/gas/vapor/spray Use in well ventilated areas Wash thoroughly after handling Do not eat, drink, or smoke when handling this product Do not handle until all safety precautions have been read and understood Contaminated work clothing should not be allowed out of the work place.	**Eyes:** Flush eyes with copious amounts of water for at least 15 minutes. Seek medical attention if eye irritation persists. **Skin:** Wash affected area with mild soap and water. Seek medical attention if skin irritation persists. **Inhalation**: Remove to fresh air. Check for clear airway, breathing and presence of pulse. If necessary administer CPR. Consult a physician immediately. **Ingestion:** Dust may irritate mouth and gastrointestinal tract. If ingested, seek medical attention immediately.
STORAGE	**DISPOSAL**
Store away from acids and incompatible materials Store in accordance with federal/provincinal/state or local regulations	Steel scrap should be recycled whenever possible Otherwise, dispose of in accordance with applicable federal, provincinal / state or local regulations.

2.3 Hazards not otherwise classified (HNOC): Not applicable

Section 3: Composition / Information on Ingredients

3.1 All values are expressed as weight present and are approximate. The percent composition reflects the range that is possible within this group of products. These are not technical specifications for a particular product,

COMPONENT	CAS NUMBER	PERCENT
Iron	7439-89-6	95 - 99
Carbon	7440-44-0	0.01 1.10
Manganese	7439-96-5	0.25 - 1.65
Phosphorous	7723-14-0	0.04 Max
Silicon	7440-21-3	1.60 Max
Chromium	7440-47-3	<0.10
Vanadium	7440-62-2	<0.10
Sulfur	7704-34-9	<0.35

Section 4: First-Aid Measures

4.1

Eye contact: Flush eyes with copious amounts of water for at least 15 minutes. Seek medical attention if eye irritation persists.

Skin contact: If skin irritation develops wash affected area with mild soap and water. Seek medical attention if skin irritation persists.

Inhalation: Remove to fresh air. Check for clear airway, breathing and presence of pulse. If necessary administer CPR. Consult a physician immediately.

Ingestion: If significant amounts of dust are ingested consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

Carbon steel as a solid is not likely to present an acute or chronic health effects. However, during processing such a blasting, cutting, grinding, melting, tumbling, and welding emitted By products may cause irritations, difficulty in breathing, coughing or wheezing, May also cause allergic skin reactions.

4.3 Indication of any immediate medical attention and special treatment, if necessary.

Notes to physician: May cause sensitization by skin contact or inhalation. Treat symptomatically.

Section 5: Fire-Fighting Measures

5.1 Suitable extinguishing media
Non-flammable. Will not support combustion. Not applicable for solid product. Use extinguishers Appropriate for surrounding materials. Do not use water on molten metal. A fire involving a finely Divided alloy should be treated as a class D combustible metal fire.

5.2 Special hazards arising from material
Not applicable for solid product.

5.3 Hazardous combustion products
Not applicable for solid formed alloy. Toxic metal and metallic oxide fumes may be evolved from fires Involving finely divided alloys.

5.4 Special Fire-Fighting instructions
For solid formed alloy, as appropriate for surrounding fire. Firefighters should wear self-contained NIOSH approved breathing apparatus and full protective clothing.

5.5 Explosion data
Solid formed alloy does not constitute a fire or explosion hazard. However, finely divided suspended particles May present a fire and explosion hazard in the presence of an ignition source.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:
Not applicable to Carbon steel in solid state. Avoid dust formation. Ensure adequate ventilation. Clean-up Personnel should be protected against inhalation and eye skin contact.

6.2 Environmental precautions:
Not applicable for carbon steel in solid state.

6.3 Methods and materials for containment and cleaning up:
Not applicable for carbon steel in solid state. For spills involving fine dusts, remove by vacuuming with HEPA filter or wet sweeping methods to prevent spread of dust. Avoid inhalation of dust.

Section 7: Handling and Storage

7.1 Precautions for safe handling
Not applicable for carbon steel in solid state. Operations with the potential for generating high concentrations of airborne particles should be evaluated and controlled as necessary. Avoid breathing metal fumes/ or dust. Practice good housekeeping as cut wire can be a safety hazard under foot due to its shape. Spills should be cleaned from floors immediately. Be alert to sharp edges and unsecured lifts. Observe maximum floor loading limits as cut wire is very dense and weighs approximately 270 lbs. per cubic foot.

7.2 Conditions for safe storage:
No special storage conditions for carbon steel in solid state.

7.3 Incompatible products

Store away from acids and incompatible materials.

Section 8: Exposure Controls / Personal Protection

8.1 Control parameters:

**There are no exposure limits for carbon steel. Carbon steel metal is considered an article and NOT Hazardous is solid form. However, certain process such as blasting, tumbling, cutting, grinding, melting, And welding could result in some hazardous materials being emitted. The following classification Information is for hazardous elements which may be emitted during these processes. The exposure Limit for iron-containing fumes has been established at 5 mg.m3 with ACGIH's TWA. The individual Complex compounds with the fume may have lower exposure limits than the general fume.

COMPONENTS	CAS NUMBER	OSHA PEL (MG/M3)	ACGIH TLV (MG/M3)
**Iron	7439-89-6	10.0 mg/m3 Iron Oxide fume	5.0mg/m3 Iron Oxide dust & fume
**Carbon	7440-44-0	No Data	-
**Manganese	7439-96-5	5.0 mg/m3 (ceiling)	0.2 mg/m3
**Phosphorus	7723-14-0	0.10 mg/m3	-
**Silicon	7440-21-3	15.0 mg/m3 total dust 5.0 mg/m3 respirable dust	10.0 mg/m3 total dust
**Chromium	7440-47-3	1.0 mg/m3 metal & insoluble salt 0.5 mg/m3 Cr (III) 5.0 mg/m3 Cr (VI) 2.5 mg/m3 Action level Cr (VI)	0.5 mg/m3 metal & Cr (III) 0.05 mg/m3 Cr (IV) & water soluble compounds 0.01 mg/m3 Cr (VI) insoluble compounds
**Vanadium	7440-62-2	As fume: 0.10 mg/m3 As dust: 0.50 mg/m3	-
**Sulfur	7704-34-9	13.0 mg/m3	-

Notes: Additional air makeup systems may be required if local exhaust or ventilation systems are not sufficient to Maintain exposure levels of contaminants below prescribed limits. When inhalation controls are not sufficient To reduce the exposure to below applicable exposure limit then use OSHA/NIOSH approved respiratory protection Within the limitations of the respirator. OSHA PEL'S and Threshold Limit Values (TLV) established by the Occupational Health and Safety Administration and the American conference of Governmental Industrial Hygienists (ACGIH) are 8 hour time weighted average concentrations unless otherwise noted.

8.2 Exposure Controls

Appropriate Engineering Controls: Local and general exhaust ventilation should be used to keep worker Exposure below exposure limits during blasting, tumbling, welding, cutting Grinding, machining and other processes which may generate airborne Contaminants.

Individual Protective Measures: Dependent upon process being performed on material. Each operation Must be evaluated for suitable equipment prior to using material.

Gloves: Suitable for protection against any physical injury and skin contact During handling.

Eyes:	Safety glasses or goggles should be worn when there is possibility of flying particles or elevated levels of dust or fume.
Clothing:	Appropriate work clothing as determined by user.
Respirator:	If concentrations exceed established limits use NIOSH/MSHA Approved particulate respirators (dust & fume or high efficiency Dust and fume)
Footwear:	Steel toe work boots recommended or as determined by user.
Other:	N/A

Pictograms:

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Section 10: Stability and Reactivity

10.1 Reactivity

Not determined for product in solid form.

10.2 Chemical stability

Stable under normal conditions of transport, storage and use for solid formed product.

10.3 Possibility of hazardous reactions

Hazardous polymerization will not occur

10.4 Conditions to avoid

Contact with mineral acids will release flammable hydrogen gas. Also avoid dust formation.

10.5 Incompatible materials

Oxidizers-reacts with strong acids to form explosive hydrogen gas.

10.6 Hazardous decomposition products

During certain operations such as blasting, tumbling, welding, burning, melting metal dust/fumes may be generated.

Section 11: Toxicological Information

Note: Carbon steel is considered an article and not hazardous in solid form, However, certain Processes such as blasting, tumbling, grinding, melting, and welding could result in some hazardous Materials being emitted. The following toxicology information is for the hazardous elements with may Be emitted during the processes

COMPONENT	LD50 ORAL	LD50 DERMAL	LD 50 INHALATION	OTHER
Iron	30,000 mg/kg oral-Rat	-	-	-
Chromium	No data available	-	-	-
Carbon	No data available	-	-	-
Manganese	9,000 mg/kg oral-Rat	-	-	-
Silicon	3,160 mg/kg	-	-	-
Phosphorous	No data available	-	-	-
Vanadium	No data available	-	-	-
Sulfur	No data available	-	-	-

11.1 Likely Routes of Entry:

Eyes: High concentrations of dust may cause irritation to eyes.

Skin: Prolonged skin contact with dust may cause skin irritation to sensitive individuals.

Inhalation: Inhalation of metal particulate or elemental oxide fumes generated during blasting, tumbling, welding, burning, melting, grinding or machining may pose acute or chronic health effects.

Symptoms related to the physical, chemical & toxicological characteristics:
None for Carbon steel in its natural solid state.

Effects of Acute exposure to the material:
Manganese: Inhalation over exposure to manganese may cause metal fume fever Characterized by fever and chills (flu like symptoms) which appear 4-6 hours after exposure With no long term effects.

Effects of Chronic Exposure to the material:
Chromium: IARC (International Agency for research or Cancer) lists certain hexavalent chromium Compounds under its Group 1 category “confirmed carcinogenicity to humans” and metallic chromium under Its group 3 category “Not classifiable as to carcinogenic to humans” Chromium metal is classified as Carcinogenic by the NTP (National Toxicity Program). Dermatitis may result in chromium fumes.

Iron: Inhalation over exposures may cause a benign pneumoconiosis (Siderosis)
With few or no symptoms.

Manganese: Existing studies are inadequate to assess its carcinogenicity. Susceptible to Parkinson's Disease, metal fume fever, and kidney disease.

Specific Target Organ Toxicity (STOT) Single Exposure:
No data

Specific Target Organ Toxicity (STOT) Repeated Exposure:
Respiratory system, allergic skin reaction.

Mutagenicity of material:
Not applicable

Reproductive Effects:
Not applicable

Teratogenicity of material:
Not applicable

Carcinogenicity of material:
Chromium: IARC (International Agency for research or Cancer) lists certain hexavalent chromium Compounds under its Group 1 category "confirmed carcinogenicity to humans" and metallic chromium under Its group 3 category "Not classifiable as to carcinogenic to humans" Chromium metal is classified as Carcinogenic by the NTP (National Toxicity Program).

Synergistic of materials:
Not applicable

Aspiration hazard:
No data available

Sensitization of material:
Not applicable

LD50 of material:
Not established

LC50 of material:
Not established

References:
International Agency for research of Cancer (IARC) summaries & evaluation (2008)
3rd annual report on carcinogens as prepared by the National Toxicity Program (NTP)
Iron containing welding fume has an exposure limit of 5 mg/m3 (ACGIH-TLV's 2011)

Section 12: Ecological Information

12.1 Ecotoxicity:

No data available for Carbon steel in its natural solid state. However individual components of the material have been found to be toxic to the environment.

COMPONENTS	TOXICITY TO FISH	TOXICITY TO ALGAE	TOXICTY/TO MICROORGANISMS
Iron	LC50 Common Carp 96 hr 0.56 mg/l	-	-
Chromium	LC50 Fathead Minnow 96 hr 10-100 mg/l	-	-

12.2 Persistence and degradability:

No data available

12.3 Bio accumulative potential:

No data available

12.4 Mobility in soil:

No data available for Carbon steel in its solid state. Individual metal dusts may migrate into soil and groundwater and be absorbed by plants.

12.5 Other adverse effects:

None known.

Section 13: Disposal Considerations

13.1 Waste Disposal Methods:

Steel scrap should be recycled whenever possible.

- **Container Cleaning & Disposal**
  Dispose of in accordance with applicable federal, provincial/state or local regulations.

Section 14: Transport Information

General Shipping Information: Carbon steel is not regulated for shipping

Shipping name and description: Non-regulated material

UN-Number Non-regulated material

Hazard class: Non-regulated material

Packaging/Risk group Not applicable

Transport regulations: Canadian Transportation of Dangerous Goods Regulations (TDG) March 2011
US Department of Transportation (DOT) Hazardous materials Shipping regulations (Title 49-Transportation March 2011)

Section 15: Regulatory Information

Note: Carbon steel shot is considered an article and not hazardous in solid form, However, certain Processes such as blasting, tumbling, grinding, melting, and welding could result in some hazardous Materials being generated/ emitted. User needs to determine if the Carbon Steel article has generated/ emitted the components (***)

15.1 Regulatory Information: The following listing of regulation relative to Pellets LLC product may not be Complete and should not be sole replied upon for all regulatory Compliance responsibilities.

Additional US Regulations: The components(***see below) of this material are subject to the reporting Requirements of Sections 302,304 & 313 of Title III of the Superfund amendments and Reauthorization Act (SARA=2006) as follows.

Chemical Name	SARA 302 (40 CFR 355, Apendix A)	SARA 304 (40 CFR Table 302.4)	SARA 313 (40 CFR 372.65)	CERCLA Reportable Quantities
Carbon Steel	N/A	N/A	N/A	N/A

*****Iron, Carbon, Manganese, Silicon, Sulfur, Vanadium, Chromium, & Phosphorous**

CERCLA Reportable Qty (RQ):
RQ's for hazardous substances in the Comprehensive Environmental Response, Compensation and liability Act

TSCA Inventory Status:
The components of this material are listed on the Toxic Substance Control Act Inventory.

California (Proposition 65):
The Chromium (VI) component of this material is known in the state of California to cause Cancer.

Other State Regulations:
Pennsylvania R-T-K List: Manganese, Silicon and Chromium.
New Jersey R-T-K List : Manganese, and Chromium.

Additional Canadian Regulations:
WHIMS Classification:
Components of this material are on Class D2/D28 Materials causing toxic effects

Domestic Substances list:
Components of this material are on the federal DSL inventory.

Other Canadian Regulations:
Not Applicable.

Section 16: Other information

Carbon Steel

Hazard Labeling Rating System:
National Fire Protection Code:
NFPA H=O* F=O R=O
*Denotes possible chronic health hazard if airborne dusts and fumes are generated

Hazardous Material Identification System:
HMIS Code: H=O* F=O R=O PPE (See Section 8)
*Denotes possible chronic health hazard if airborne dusts and fumes are generated.

HEALTH	0*
FLAMMABILITY	0
REACTIVITY	0
OTHER	

Prepared by: Pellets LLC

This information and recommendations in this safety data sheet are, to best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not Established a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product of any particular purpose or application.

Abbreviations & Acronyms
DOT: Us Dept. of Transportation
ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstracts Service (Division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Material Identification System (USA)
LC50: Lethal Concentration- 50 percent
LD50: Lethal Dose -50 percent
EC50: Effective Concentration- 50 percent