



The Steel Company of Canada

**Galvanizing Dross
Safety Data Sheet (SDS)**

Section 1 – Identification

1(a) Product Identifier Used on Label: Galvanizing Dross

1(b) Other Means of Identification: Zinc Dross

1(c) Recommended Use of the Chemical and Restrictions on Use:

1(d) Name, Address, and Telephone Number:

Stelco Inc.

386 Wilcox Street

Hamilton, ON L8L 8K5

Phone number : (905) 528-2511 (8:00 am to 5:00 pm)

1(e) Emergency Phone Number: 1-888-CAN-UTEC (226-8832) or 613-996-6666

Section 2 – Hazard(s) Identification

2(a) Classification of the Chemical: Galvanizing Dross is hazardous according to the criteria specified in European Directives 67/548/EEC and 1999/45/EC, OSHA 29 CFR 1910.1200 Hazard Communication Standard and the Canadian Hazardous Products Regulations. The categories of Health Hazards as defined in “GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS)”, have been evaluated and are listed below. Refer to Section 3, 8 and 11 for additional information.

2(b) Signal Word, Hazard Statement(s), Symbols and Precautionary Statement(s):

Hazard Symbol	Hazard Classification	Signal Word	Hazard Statement(s)	Precautionary Statement(s)
	(STOT) Repeat Exposure - 2	Warning	May cause damage to lungs through prolonged or repeated exposure.	<p>Do not breathe dusts/fumes. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area.</p> <p>Wash hands thoroughly after handling.</p> <p>Get medical advice/attention if you feel unwell.</p> <p>If inhaled: Remove person to fresh air and keep comfortable for breathing.</p> <p>If skin irritation occurs or eye irritation persists, get medical advice/attention.</p> <p>If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Store in a well-ventilated place. Keep container tightly closed.</p> <p>Dispose of contents in accordance with federal, provincial, state and local regulations.</p>
	Acute Toxicity-Oral 4 STOT Single Exposure - 3		May cause damage to the nervous system through prolonged or repeated oral exposure.	
N/A	Skin Irritation - 3		Harmful if swallowed.	
N/A	Eye Irritation - 2B		Causes mild skin irritation and eye irritation. May cause respiratory irritation.	

2(c) Hazards Not Otherwise Classified: None Known

2(d) Unknown Acute Toxicity Statement (mixture): None Known

Section 3 – Composition/Information on Ingredients

3(a-c) Chemical Name, Common Name (Synonyms), CAS Number and Other Identifiers, and Concentration:

Chemical Name	CAS Number	EC Number	% weight
Zinc	7440-66-6	231-175-3	88 - 99.9
Iron	7439-89-6	231-096-4	0.1 - 6
Aluminum	7429-90-5	231-072-3	0 - 3
Silicon	7440-21-3	231-130-8	0 - 3

EC- European Community

CAS- Chemical Abstract Service

Galvanizing Dross contains small amounts of various constituents in addition to those listed. These small quantities are frequently referred to as “trace” or “residual” constituents that generally originate in the raw materials used. Galvanizing Dross may contain the following trace or residual constituents including: lead and copper.

Section 4 – First-aid Measures

4(a) Description of Necessary Measures:

- **Inhalation:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.
- **Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- **Skin Contact:** If skin irritation occurs: Get medical advice/attention.
- **Ingestion:** Call a poison center or Doctor/physician if you feel unwell. Rinse mouth.

4(b) Most Important Symptoms/Effects, Acute and Delayed (Chronic): N/A

4(c) Immediate Medical Attention and Special Treatment: None Known

Section 5 – Fire-fighting Measures

5(a) Suitable (and unsuitable) Extinguishing Media: Not applicable for solid product. Use extinguishers appropriate for surrounding materials.

5(b) Specific Hazards Arising from the Chemical: Not applicable for solid product.

5(c) Special Protective Equipment and Precautions for Fire-fighters: Self-contained MSHA/NIOSH approved respiratory protection and full protective clothing should be worn when fumes and/or smoke from fire are present. Heat and flames cause emittance of acrid smoke and fumes. Do not release runoff from fire control methods to sewers or waterways. Firefighters should wear full face-piece self-contained breathing apparatus and chemical protective clothing with thermal protection. Direct water stream will scatter and spread flames and, therefore, should not be used.

Section 6 - Accidental Release Measures

6(a) Personal Precautions, Protective Equipment and Emergency Procedures: Not applicable in solid state. For spills involving finely divided particles, clean-up personnel should be protected against contact with eyes and skin. If material is in a dry state, avoid inhalation of dust. Fine, dry material should be removed by vacuuming or wet sweeping methods to prevent spreading of dust. Avoid using compressed air. Do not release in to sewers or waterways. Collect material in appropriate, labeled containers for recovery or disposal in accordance with federal, provincial, state, and local regulations.

6(b) Environmental precautions: Not applicable to product in solid state. Follow applicable federal, provincial, state, and local regulations.

6(c) Methods and Materials for Containment and Clean Up: Collect material in appropriate, labeled containers for recovery or disposal in accordance with federal, provincial, state, and local regulations. Follow applicable regulations (e.g. 29 CFR 1910.120) and all other pertinent federal, provincial, state and local requirements.

Section 7 - Handling and Storage

7(a) Precautions for Safe Handling: Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Operations with the potential for generating high concentrations of airborne particulates should be evaluated and controlled as necessary. Practice good housekeeping. Avoid breathing metal fumes and/or dust.

7(b) Conditions for Safe Storage, Including any Incompatibilities: Whenever feasible store locked up. Store in a well ventilated place. Store away from acids and incompatible materials.

Section 8 - Exposure Controls/Personal Protection

8(a) Occupational Exposure Limits (OELs): The following exposure limits are offered as reference, for an experienced industrial hygienist to review.

Ingredients	Ontario TWA ¹	ACGIH TLV ²	OSHA PEL ³	NIOSH REL ⁴	IDLH ⁵
Zinc	2.0 mg/m ³ (as respirable zinc oxide)	2.0 mg/m ³ (as respirable zinc oxide)	5.0 mg/m ³ (as zinc oxide fume) 15 mg/m ³ (as total dust) 5.0 mg/m ³ (as respirable fraction ⁶)	10 mg/m ³ (as total dust) 5.0 mg/m ³ (as respirable dust)	NE
Iron	5.0 mg/m ³ (as iron oxide, respirable fraction ⁶)	5.0 mg/m ³ (as iron oxide, respirable fraction ⁶)	10 mg/m ³ (as iron oxide fume)	5.0 mg/m ³ (as iron oxide dust and fume)	2,500 mg Fe/m ³
Aluminum	1.0 mg/m ³ (as respirable fraction ⁶)	1.0 mg/m ³ (as respirable fraction ⁶)	15 mg/m ³ (total dust, PNOR) ⁹ 5.0 mg/m ³ (as respirable fraction, PNOR)	10 mg/m ³ (as total dust) 5.0 mg/m ³ (as respirable dust)	NE
Silicon	10 mg/m ³ (Inhalable ⁷ PNOS) 3 mg/m ³ (Respirable PNOS)	10 mg/m ³ (Inhalable PNOS) ⁸ 3 mg/m ³ (Respirable PNOS)	15 mg/m ³ (total dust, PNOR) 5.0 mg/m ³ (as respirable fraction, PNOR)	10 mg/m ³ (as total dust) 5.0 mg/m ³ (as respirable dust)	NE

NE - None Established

1. Time-Weighted Average (TWA) limits established by the Ontario Ministry of Labour are 8-hour TWA concentrations unless otherwise noted. A Short Term Exposure Limit (STEL) is defined as the maximum concentration to which workers can be exposed for a short period of time (15 minutes) for only four times throughout the day with at least one hour between exposures.
2. Threshold Limit Values (TLV) established by the American Conference of Governmental Industrial Hygienists (ACGIH) are 8-hour TWA concentrations unless otherwise noted. ACGIH TLVs are for guideline purposes only and as such are not legal, regulatory limits for compliance purposes. A Short Term Exposure Limit (STEL) is defined as the maximum concentration to which workers can be exposed for a short period of time (15 minutes) for only four times throughout the day with at least one hour between exposures.
3. OSHA PELs (Permissible Exposure Limits) are 8-hour TWA (Time-Weighted Average) concentrations unless otherwise noted. A ("C") designation denotes a ceiling limit, which should not be exceeded during any part of the working exposure unless otherwise noted. An Action level (AL) is used by OSHA and NIOSH to express a health or physical hazard. They indicate the level of a harmful or toxic substance/activity, which requires medical surveillance, increased industrial hygiene monitoring, or biological monitoring. Action Levels are generally set

at one half of the PEL but the actual level may vary from standard to standard. The intent is to identify a level at which the vast majority of randomly sampled exposures will be below the PEL.

4. The National Institute for Occupational Safety and Health Recommended Exposure Limits (NIOSH-REL) Compendium of Policy and Statements. NIOSH, Cincinnati, OH (1992). NIOSH is the U.S. federal agency designated to conduct research relative to occupational safety and health. As is the case with ACGIH TLVs, NIOSH RELs are for guideline purposes only and as such are not legal, regulatory limits for compliance purposes.
5. The "immediately dangerous to life or health air concentration values (IDLHs)" are used by NIOSH as part of the respirator selection criteria and were first developed in the mid-1970's by NIOSH. The Documentation for Immediately Dangerous to Life or Health Concentrations (IDLHs) is a compilation of the rationale and sources of information used by NIOSH during the original determination of 387 IDLHs and their subsequent review and revision in 1994.
6. Respirable fraction. The concentration of respirable particulate for the application of this TLV is to be determined from the fraction passing a size-selector with the characteristics defined in the ACGIH TLVs® and BEIs® based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices – as cited by Ministry of Labour (MOL) R.R.O. 833/90.
7. Inhalable fraction. The concentration of inhalable particulate for the application of this TLV is to be determined from the fraction passing a size-selector with the characteristics defined in the ACGIH TLVs® and BEIs® based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices – as cited by Ministry of Labour (MOL) R.R.O. 833/90.
8. P.NOS. Particles (Insoluble or Poorly Soluble) Not Otherwise Specified defined in the ACGIH TLVs® and BEIs® based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices – as cited by Ministry of Labour (MOL) R.R.O. 833/90.
9. P.NOR (Particulates Not Otherwise Regulated). All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by a limit which is the same as the inert or nuisance dust limit of 15 mg/m³ for total dust and 5 mg/m³ for the respirable fraction.

8(b) Appropriate Engineering Controls: Use controls as appropriate to minimize exposure to metal fumes and dusts during handling operations. Provide general or local exhaust ventilation systems to minimize airborne concentrations. Local exhaust is necessary for use in enclosed or confined spaces. Provide sufficient general/local exhaust ventilation in pattern/volume to control inhalation exposures below current exposure limits.

8(c) Individual Protection Measures:

- **Respiratory Protection:** Seek professional advice prior to respirator selection and use. In the US, follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, use only a NIOSH-approved respirator. In Ontario, follow CSA Standard Z94.4-11 "Selection Care and Use of Respirators" or the "NIOSH Guide to the Selection and Use of Particulate Respirators (1996)" for additional information. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. Concentration in air of the various contaminants determines the extent of respiratory protection needed. Half-face, negative-pressure, air-purifying respirator equipped with P100 filter is acceptable for concentrations up to 10 times the exposure limit. Full-face, negative-pressure, air-purifying respirator equipped with P100 filter is acceptable for concentrations up to 50 times the exposure limit. Protection by air-purifying negative-pressure and powered air respirators is limited. Use a positive-pressure-demand, full-face, supplied air respirator or self-contained breathing apparatus (SCBA) for concentrations above 50 times the exposure limit. If exposure is above the IDLH (Immediately dangerous to life or health) for any of the constituents, or there is a possibility of an uncontrolled release or exposure levels are unknown, then use a positive-demand, full-face, supplied air respirator with escape bottle or SCBA.

Warning! Air-purifying respirators both negative-pressure, and powered-air do not protect workers in oxygen-deficient atmospheres.

- **Eyes:** Wear appropriate eye protection to prevent eye contact. For operations, which result in elevating the temperature of the product to or above its melting point or result in the generation of airborne particulates, use safety glasses to prevent eye contact. Contact lenses should not be worn where industrial exposures to this material are likely.
- **Skin:** Wear appropriate personal protective clothing to prevent skin contact. For operations, which result in elevating the temperature of the product to or above its melting point or result in the generation of airborne particulates, use protective clothing, and gloves to prevent skin contact. Protective gloves should be worn as required for burning or handling operations.
- **Other Protective Equipment:** An eyewash fountain and deluge shower should be readily available in the work area.

Section 9 - Physical and Chemical Properties

<p>9(a) Appearance (physical state, color, etc.): Fused agglomerate mass or dust; silver-gray metallic</p> <p>9(b) Odor: Odorless</p> <p>9(c) Odor Threshold: ND</p> <p>9(d) pH: NA</p> <p>9(e) Melting Point/Freezing Point: 419°C (787°F) (zinc)</p> <p>9(f) Initial Boiling Point and Boiling Range: ND</p> <p>9(g) Flash Point: NA</p> <p>9(h) Evaporation Rate: NA</p> <p>9(i) Flammability (solid, gas): Non-flammable, non-combustible</p> <p>NA - Not Applicable ND - Not Determined for product as a whole</p>	<p>9(j) Upper/lower Flammability or Explosive Limits: NA</p> <p>9(k) Vapor Pressure: NA</p> <p>9(l) Vapor Density (Air = 1): NA</p> <p>9(m) Relative Density: NA</p> <p>9(n) Solubility(ies): NA</p> <p>9(o) Partition Coefficient n-octanol/water: ND</p> <p>9(p) Auto-ignition Temperature: NA</p> <p>9(q) Decomposition Temperature: ND</p> <p>9(r) Viscosity: NA</p>
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Section 10 - Stability and Reactivity

- 10(a) Reactivity:** Not Determined (ND) for product as a whole.
- 10(b) Chemical Stability:** Galvanizing Dross is stable under normal storage and handling conditions.
- 10(c) Possibility of Hazardous Reaction:** Hazardous polymerization cannot occur.
- 10(d) Conditions to Avoid:** Storage with strong acids or calcium hypochlorite.
- 10(e) Incompatible Materials:** Will react with strong acids to form hydrogen. Iron oxide dusts in contact with calcium hypochlorite evolve oxygen and may cause an explosion.

10(f) Hazardous Decomposition Products: Thermal oxidative decomposition can produce fumes containing oxides of iron as well as other elements.

Section 11 - Toxicological Information

11(a-h) Information on Toxicological Effects:

The following toxicity data have been determined for **Galvanizing Dross** using the information available for its components applied to the guidance on the preparation of an SDS under the GHS requirements of WHMIS, OSHA and the EU CPL:

- a. No LC₅₀ or LD₅₀ has been established for **Galvanizing Dross**. The following data has been determined for the components:
 - **Zinc:** LD₅₀ = >2000 mg/kg (Oral/Rat)
 - **Iron:** LD₅₀= 1060 mg/kg (Oral/ Rat)
 - **Aluminum (as Aluminum Oxide):** LD₅₀= >5000 mg/kg (Oral/Rat)
- b. No Skin Irritation data available for **Galvanizing Dross** as a mixture. The following Skin Irritation information was found for the components:
 - **Iron:** Causes skin irritation
- c. No Eye Irritation data available for **Galvanizing Dross** as a mixture. The following Eye Irritation information was found for the components:
 - **Iron:** Causes eye irritation.
- d. No Germ Cell Mutagenicity data available for **Galvanizing Dross** as a mixture. The following Germ Cell Mutagenicity information was found for the components:
 - **Iron:** IUCLID has found some positive and negative findings *in vitro*.
 - **Aluminum and Aluminum Oxide:** IUCLID; ATSDR have found this ingredient is not mutagenic *in vitro*; but has marginal effects *in vivo*.
- e. Carcinogenicity: IARC, NTP, and OSHA do not list **Galvanizing Dross** as a carcinogen. The following Carcinogenicity information was found for the components:
 - **Silica, Fused:** IARC 3
- f. No Toxic Reproduction data available for **Galvanizing Dross** as a mixture. The following Toxic Reproductive information was found for the components:
 - **Aluminum and Aluminum Oxide:** ATSDR has found these ingredients may cause delay in development of neurobehavioral indices.
- g. No Specific Target Organ Systemic Toxicity (STOST) following a Single Exposure data available for **Galvanizing Dross** as a mixture. The following STOST following a Single Exposure data was found for the components:
 - **Iron:** Listed as Category 3, Irritating to respiratory tract.
- h. No Specific Target Organ Systemic Toxicity (STOST) following Repeated Exposure data available **Galvanizing Dross** as a mixture: The following STOST following Repeated Exposure information was found for the components:
 - **Zinc and Zinc Oxide:** EU RAR has found rats repeatedly exposed by oral route to Zn salts developed reduced copper levels and changes in the pancreas (focal acinar degeneration and necrosis) and the spleen (decreased number of pigmented macrophages).
 - **Aluminum and Aluminum Oxide:** IPCS INTOX listed as Category 2, review have found chronic exposure to aluminum flake has been reported to cause pneumoconiosis in workers. ASTDR listed as Category 2, has found repeat oral exposure to aluminum results in decrements in neurobehavioral function and development.

The above toxicity information was determined from available scientific sources to illustrate the prevailing posture of the scientific community. The scientific resources includes: The American Conference of Governmental Industrial Hygienist (ACGIH) Documentation of the Threshold Limit Values (TLVs) and Biological Exposure indices (BELs) with Other Worldwide Occupational Exposure Values 2017, The International Agency for Research on Cancer (IARC), The National Toxicology Program (NTP) updated documentation, the World Health Organization (WHO) and other available resources, the International Uniform Chemical Information Database (IUCLID), European Union Risk Assessment Report (EU-RAR), Concise International Chemical Assessment Documents (CICAD), European Union Scientific Committee for Occupational Exposure Limits (EU-SCOEL), Agency for Toxic Substances and Disease Registry (ATSDR), Hazardous Substance Data Bank (HSDB), and International Program on Chemical Safety (IPCS).

The following health hazard information is provided regardless to classification criteria and is based on the individual component(s) and potential resultant components from further processing:

Primary Entry Routes: **Galvanizing Dross** in its usual physical form does not present an inhalation, ingestion or contact hazard. However, operations such as burning and heating may result in the following effects if exposures exceed recommended limits as listed in Section 8.

Target Organs: Respiratory system

Acute Effects:

- **Inhalation:** Excessive exposure to high concentrations of dust may cause irritation to the eyes, skin and mucous membranes of the upper respiratory tract.
- **Eye:** Excessive exposure to high concentrations of dust may cause irritation to the eyes. Particles of iron or iron compounds, which become imbedded in the eye, may cause rust stains unless removed fairly promptly.
- **Skin:** Skin contact with dusts may cause irritation or sensitization, possibly leading to dermatitis. Skin contact with metallic fumes and dusts may cause physical abrasion.
- **Ingestion:** Ingestion of harmful amounts of this product as distributed is unlikely due to its solid insoluble form. Ingestion of dust may cause nausea or vomiting.

Acute Effects by component:

- **Zinc:** Not Reported/Not Classified
- **Iron:** Iron is harmful if swallowed, causes skin irritation, and causes eye irritation. Contact with iron oxide has been reported to cause skin irritation and serious eye damage.
- **Aluminum:** Not Reported/Not Classified
- **Silicon:** Not Reported/ Not Classified

Delayed (chronic) Effects by Component:

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- **Zinc:** Zinc dusts are a low health risk by inhalation and should be treated as a nuisance dust. Inhalation of zinc oxide fumes may cause metal fume fever, which is characterized by flu-like symptoms with metallic taste, fever, chills, cough, weakness, chest pain, muscle pain and increased white blood cell count.
- **Iron:** Chronic inhalation of excessive concentrations of iron oxide fumes or dusts may result in the development of a benign pneumoconiosis, called siderosis, which is observable as an X-ray change. No physical impairment of lung function has been associated with siderosis. Inhalation of excessive concentrations of ferric oxide may enhance the risk of lung cancer development in workers exposed to pulmonary carcinogens. Iron oxide is listed as a Group 3 (not classifiable) carcinogen by IARC.
- **Aluminum:** Chronic inhalation of finely divided powder has been reported to cause pulmonary fibrosis and emphysema. Repeated skin contact has been associated with bleeding into the tissue, delayed hypersensitivity and granulomas. Chronic exposure to aluminum flake has been reported to cause pneumoconiosis in workers. Repeat oral exposure to aluminum results in decrements in neurobehavioral function and development.
- **Silicon/Amorphous Silica:** Silicon dusts are a low health risk by inhalation and should be treated as a nuisance dust. Eye contact with pure material can cause particulate irritation. Skin contact with silicon dusts may cause physical abrasion.

Long-term inhalation exposure to high concentrations (over-exposure) of agents that produce lung disorders may act synergistically with inhalation of oxides, vapors or dusts of this product to cause toxic effects.

Carcinogenicity: IARC, NTP, and OSHA do not list **Galvanizing Dross** as a carcinogen.

Medical Conditions Aggravated by Long-Term Exposure: Individuals with chronic respiratory disorders (i.e., asthma, chronic bronchitis, emphysema, etc.) may be adversely affected by any fume or airborne particulate matter exposure.

SARA Potential Hazard Categories: Immediate Acute Health Hazard; Delayed Chronic Health Hazard

Section 12 - Ecological Information

12(a) Ecotoxicity (aquatic & terrestrial): No data available for the product, **Galvanizing Dross** as a whole. However, individual components of the product have been found to be toxic to the environment. Metal dusts may migrate into soil and groundwater and be ingested by wildlife as follows:

- **Zinc and Zinc Oxide:** EU RAR lists as Category 1 Very toxic to aquatic life with long lasting effects
- **Iron (as iron oxide):** LC₅₀: >1000 mg/L; Fish
- **Aluminum (as Aluminum Oxide):** LC₅₀ >100 mg/l for fish and algae

12(b) Persistence & Degradability: No Data Available

12(c) Bioaccumulative Potential: No Data Available

12(d) Mobility (in soil): No data available for the product, **Galvanizing Dross** as a whole. However, individual components of the product have been found to be absorbed by plants from soil.

12(e) Other Adverse Effects:

Additional Information:

Hazard Category: Category 1 Chronic to the Aquatic Environment (Zinc)

Signal Word: Warning



Hazard Symbol:

Hazard Statement: Very Toxic to aquatic life with long lasting effects

Section 13 - Disposal Considerations

Disposal: **Galvanizing Dross** should be recycled whenever possible. Product dusts and fumes from processing operations should also be recycled, or classified by a competent environmental professional and disposed of in accordance with applicable federal, provincial, state or local regulations.

Container Cleaning and Disposal: Follow applicable federal, provincial, state and local regulations. Observe safe handling precautions. European Waste Catalogue (EWC):10-05-10 (dross and skimmings that are flammable or emit, upon contact with water, flammable gases in dangerous quantities) or 10-05-11 (dross and skimmings other than those mentioned in 10-05-10).

Please note this information is for Galvanizing Dross in its original form. Any alterations can void this information.

Section 14 - Transport Information

14 (a-g) Transportation Information:

TDG/US Department of Transportation (DOT) under federal WHMIS and 49 CFR 172.101 US Department of Transportation (DOT) under 49 CFR 172 does not regulate **Galvanizing Dross** as a hazardous material. All federal, provincial, state, and local laws and regulations that apply to the transport of this type of material must be adhered to.

Shipping Name: NA
Shipping Symbols: NA
Hazard Class: NA
UN No.: NA
Packing Group: NA
DOT/ IMO Label: NA
Special Provisions (172.102): NA

Packaging Authorizations
a) Exceptions: NA
b) Non-bulk: NA
c) Bulk: NA

Quantity Limitations
a) Passenger, Aircraft, or Railcar: NA
b) Cargo Aircraft Only: NA
Vessel Stowage Requirements
a) Vessel Stowage: NA
b) Other: NA
DOT Reportable Quantities: NA

Section 14 - Transport Information (continued)

International Maritime Dangerous Goods (IMDG) and the Regulations Concerning the International Carriage of Dangerous Goods by Rail (RID) classification, packaging and shipping requirements follow the US DOT Hazardous Materials Regulation.

Regulations Concerning the International Carriage of Dangerous Goods by Road (ADR) does not regulate Galvanizing Dross as a hazardous material.

Shipping Name: NA Classification Code: NA UN No.: NA Packing Group: NA ADR Label: NA Special Provisions: NA Limited Quantities: NA	Packaging a) Packing Instructions: NA b) Special Packing Provisions: NA c) Mixed Packing Provisions: NA	Portable Tanks & Bulk Containers a) Instructions: NA b) Special Provisions: NA
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International Air Transport Association (IATA) does not regulate Galvanizing Dross as a hazardous material.

Shipping Name: NA Class/Division: NA Hazard Label (s): NA UN No.: NA Packing Group: NA Excepted Quantities (EQ): NA	Passenger & Cargo Aircraft Limited Quantity (EQ) <table border="1" style="width: 100%;"> <tr> <td style="width: 50%;">Pkg Inst: NA</td> <td style="width: 50%;">Pkg Inst: NA</td> </tr> <tr> <td>Max Net Qty/Pkg: NA</td> <td>Max Net Qty/Pkg: NA</td> </tr> </table>	Pkg Inst: NA	Pkg Inst: NA	Max Net Qty/Pkg: NA	Max Net Qty/Pkg: NA	Cargo Aircraft Only Pkg Inst: NA Max Net Qty/Pkg: NA	Special Provisions: NA ERG Code: NA
Pkg Inst: NA	Pkg Inst: NA						
Max Net Qty/Pkg: NA	Max Net Qty/Pkg: NA						

Pkg Inst – Packing Instructions Max Net Qty/Pkg – Maximum Net Quantity per Package ERG – Emergency Response Drill Code

Transport Dangerous Goods (TDG) Classification: Galvanizing Dross does not have a TDG classification.

Section 15 - Regulatory Information

Regulatory Information: *The following listing of regulations relating to a Stelco product may not be complete and should not be solely relied upon for all regulatory compliance responsibilities.* This product and/or its constituents are subject to the following regulations:

SARA Potential Hazard Categories: Immediate Acute Health Hazard; Delayed Chronic Health Hazard

Section 313 Supplier Notification: The product, **Galvanizing Dross** contains the following toxic chemicals subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372:

CAS #	Chemical Name	Percent by Weight
7440-66-6	Zinc	99.9 max

State Regulations: The product, **Galvanizing Dross** as a whole is not listed in any state regulations. However, individual components of the product are listed in various state regulations.

Pennsylvania Right to Know: Contains regulated material in the following categories:

- Hazardous Substances: Silicon
- Environmental Hazards: Aluminum and Zinc

California Prop. 65: The product, **Galvanizing Dross** does not contain elements known to the State of California to cause cancer or reproductive toxicity.

New Jersey: Contains regulated material in the following categories:

- Hazardous Substance:, Zinc

Minnesota: Iron, Aluminum and Silicon

Massachusetts: Aluminum and Zinc

Other regulations: The product, **Galvanizing Dross** as a whole may not be listed in other regulations. However, individual components of the product may be listed, check appropriate regulations for further regulatory compliance.

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations and the SDS contains all the information required by the Hazardous Products Regulations.

Section 16 - Other Information

Prepared By: Stelco Inc.

Revision History:

6/30/2017 – Update to Stelco

6/02/2011 – Develop sheet to comply with GHS

8/01/1985 – Original

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Additional Information:

Hazardous Material Identification System (HMIS) Classification

Health Hazard	1
Fire Hazard	0
Physical Hazard	0

HEALTH= 1, * Denotes possible chronic hazard if airborne dusts or fumes are generated Irritation or minor reversible injury possible.

FIRE= 0, Materials that will not burn.

PHYSICAL HAZARDS = 0, Materials that are normally stable, even under fire conditions, will not react with water, polymerize, decompose, condense, or self-react. Non-explosives.

National Fire Protection Association (NFPA)



HEALTH = 1, Exposure could cause irritation but only minor residual injury even if no treatment is given.

FIRE = 0, Materials that will not burn.

INSTABILITY = 0, Normally stable, even under fire exposure conditions, and are not and reactive with water.

ABBREVIATIONS/ACRONYMS:

ACGIH	American Conference of Governmental Industrial Hygienists	NIF	No Information Found
BEIs	Biological Exposure Indices	NIOSH	National Institute for Occupational Safety and Health
CAS	Chemical Abstracts Service	NTP	National Toxicology Program
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	ORC	Organization Resources Counselors
CFR	Code of Federal Regulations	OSHA	Occupational Safety and Health Administration
CNS	Central Nervous System	PEL	Permissible Exposure Limit
GI, GIT	Gastro-Intestinal, Gastro-Intestinal Tract	PNOR	Particulate Not Otherwise Regulated
HMIS	Hazardous Materials Identification System	PNOC	Particulate Not Otherwise Classified
IARC	International Agency for Research on Cancer	PPE	Personal Protective Equipment
LC50	Median Lethal Concentration	ppm	parts per million
LD50	Median Lethal Dose	RCRA	Resource Conservation and Recovery Act
LD_{L0}	Lowest Dose to have killed animals or humans	RTECS	Registry of Toxic Effects of Chemical Substances
LEL	Lower Explosive Limit	SARA	Superfund Amendment and Reauthorization Act
µg/m³	microgram per cubic meter of air	SCBA	Self-contained Breathing Apparatus
mg/m³	milligram per cubic meter of air	STEL	Short-term Exposure Limit
mppcf	million particles per cubic foot	TLV	Threshold Limit Value
SDS	Safety Data Sheet	TWA	Time-weighted Average
MSHA	Mine Safety and Health Administration	UEL	Upper Explosive Limit
MOL	Ontario Ministry of Labour	WHMIS	Workplace Hazardous Materials Information System
NFPA	National Fire Protection Association		

Disclaimer: This information is taken from sources or based upon data believed to be reliable. However, Stelco Inc. makes no warranty as to the absolute correctness or sufficiency of any of the foregoing or that additional or other measures may not be required under particular conditions.



The Steel Company of Canada

Galvanizing Dross

Signal Word: WARNING



Symbols:

HAZARD STATEMENTS:

May cause damage to lungs through prolonged or repeated exposure.
May cause damage to the nervous system through prolonged or repeated oral exposure.
Harmful if swallowed.
Causes mild skin irritation and eye irritation.
May cause respiratory irritation.

PRECAUTIONARY STATEMENTS

Do not breathe dusts/fumes. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area.
Wash hands thoroughly after handling.
Get medical advice/attention if you feel unwell.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
If skin irritation occurs or eye irritation persists, get medical advice/attention.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Store in a well-ventilated place. Keep container tightly closed.
Dispose of contents in accordance with federal, provincial, state and local regulations.

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Original Issue Date: 08/01/1985

Phone Number : (905) 528-2511 (8:00 am to 5:00 pm)
Emergency Contact: 1-888-226-8832 (CANUTEC)

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