



## Galvanized Steel Products

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SAFETY DATA SHEET  
(Complies with OSHA 29 CFR 1910.1200)

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### SECTION I: PRODUCT IDENTIFICATION

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The most recent version of this document can be found at [www.ContechES.com](http://www.ContechES.com)

SDS CON4  
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**Product(s):** Zinc coated steel products

**Product Use:** Industrial use or Construction Use

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### SECTION II - HAZARD IDENTIFICATION

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**Hazard-determining components of labeling:**

Steel is considered an article under Reach regulation (REACH REGULATION (EC) No 1907/2006) and is not subject to classification under CLP regulation (REGULATION (EC) No 1272/2008). However, Steel is not exempt as an article under OSHA's Hazard Communication Standard (29 CFR 1910.1200) due to its downstream use, thus this product is considered a mixture and a hazardous material. Therefore, the categories of Health Hazards as defined in "GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS), Third revised edition ST/SG/AC.10/30/Rev. 3" United Nations, New York and Geneva, 2009 have been evaluated. Refer to Section 3, 8 and 11 for additional information.

**This formed solid metal product poses little or no immediate health or fire hazard. When product is subjected to welding, burning, melting, sawing, brazing, grinding or other processes, potentially hazardous airborne particulate and fumes may be generated. The hazards identified below are only relevant to these processes.**

#### 2.1 Classification of the substance or mixture

Skin Sensitization – Category 1  
Specific Target Organ Toxicity Repeat Exposure – Category 1 (lung)  
Carcinogen – Category 1B  
Toxic to Reproduction – Category 2  
Eye Irritation – Category 2B  
Specific Target Organ Toxicity: Single Exposure – Category 3 (Lung)  
Acute Toxicity – Oral – Category 4

## 2.2a Signal word DANGER!

### 2.2b Hazard Statements

May cause an allergic skin reaction

May cause damage to lungs through prolonged or repeated inhalation

May cause cancer

May damage fertility or the unborn child

Dust, particles and fumes cause eye irritation

May cause respiratory irritation

Harmful if swallowed.

### 2.2c Pictograms



### 2.2d Precautionary statements

Do not handle until all safety precautions have been read and understood.

Obtain special instructions before use.

Wear impervious gloves, eye protection, and protective clothing.

Do not eat, drink or smoke when using this product.

Wash thoroughly after handling.

Wash contaminated clothing after use, before re-use, and before removing from workplace.

Concentration in air of the various contaminants determines the extent of respiratory protection needed. Half-face, air-negative-pressure 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. Respirators should be selected by and used under the direction of a trained health and safety professional, following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2).

Do not breathe dust / fumes.

If swallowed: Rinse mouth. Do NOT induce vomiting.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If on skin (or hair): Wash thoroughly with water.

If significant skin irritation or rash occurs: get medical advice or attention.

**Immediately seek medical attention if symptoms are significant or persist.**

Dispose of material in accordance with all regulations.

### 2.3 Additional Information

None

2.3a HNO3 – Hazards not otherwise classified: None known

2.3b Unknown Acute Toxicity: None known

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**SECTION III - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION**

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<b>Hazardous Components</b>	<b>CAS No.</b>	<b>% by Weight</b>
Iron	7439-89-6	70-99
Zinc	7440-66-6	1-30
Silicon	7440-21-3	<1.0
Manganese	7439-96-5	<0.2
Nickle	7440-02-0	<0.2

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**SECTION IV – FIRST AID MEASURES**

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**4.1 Description of the first-aid measures**

**General information:** This formed solid metal product poses little or no immediate health or fire hazard. When product is subjected to welding, burning, melting, sawing, brazing, grinding or other processes, potentially hazardous airborne particulate and fumes may be generated. The hazards identified below are only relevant to these processes.

**After inhalation:** Remove person to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration. In case of unconsciousness, place patient stably in side position for transportation.

**After skin contact:** Wash skin with cool water and pH-neutral soap or a mild detergent. If significant skin irritation or rash occurs: get medical advice or attention.

**After eye contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**After swallowing:** Do not induce vomiting. If conscious, have the victim drink plenty of water and call a physician immediately. Never give anything by mouth to an unconscious person.

**4.2 Most important symptoms/effects, acute and delayed**

**Inhalation:** May cause damage to lungs through prolonged or repeated inhalation

**Skin contact:** May cause an allergic skin reaction

**Eye Contact:** Dust, particles and fumes cause eye irritation

**Ingestion:** Harmful if swallowed.

**4.3 Indication of immediate medical attention and special treatment needed:**

None known.

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**SECTION V - FIRE FIGHTING MEASURES**

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This formed solid metal product poses little or no immediate health or fire hazard. When product is subjected to welding, burning, melting, sawing, brazing, grinding or other processes, potentially hazardous airborne particulate and fumes may be generated. The hazards identified below are only relevant to these processes.

**5.1 Flammability of the Product:** Non-flammable and non-combustible. Finely divided dust is combustible.

**5.2 Suitable extinguishing agents:** Treat for surrounding material

**5.3 Special hazards arising from the substance or mixture:** None

**5.3a Products of Combustion:** None

**5.3b Explosion Hazards in Presence of Various Substances:** Non-explosive in presence of shocks

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**SECTION VI – ACCIDENTAL RELEASE MEASURES**

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**6.1 Personal precautions, protective equipment and emergency procedures:** Wear personal protective equipment (See section VIII). Keep unprotected persons away.

**6.2 Methods and material for containment and cleaning up:**

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. Dispose of unwanted materials and containers properly in accordance with all regulations.

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## SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND STORAGE

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### 7.1 Handling

**Precautions for safe handling:** Wear protective equipment for hands to protect from sharp edges. Wear protective equipment to protect feet and body from injury due to the weight of this material. Further processing including welding, burning, & grinding, etc., has the potential for generating high concentrations of airborne particulates and fumes and should be evaluated and controlled as necessary. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

### 7.2 Storage

**Requirements to be met by storerooms and receptacles:** No special requirements.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** Keep out of the reach of children...

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## SECTION VIII – EXPOSURE CONTROL MEASURES / PERSONAL PROTECTION

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### 8.1 Components with limit values that require monitoring at the workplace:

Hazardous Components	PEL (OSHA) mg/M <sup>3</sup>	TLV (ACGIH) mg/M <sup>3</sup>
Iron	10 (as FeOx fume)	5.0
Chromium	0.5 (as Cr II & III)	0.5
	1.0 (as Cr, metal)	0.5
	0.005 (as Cr VI, inorganics)	0.01
Copper	0.1 (as fume, Cu)	0.1
	1.0 (as dust & mist)	1.0
Manganese	5.0 (as fume, Mn compounds)	0.2
Nickel	1.0 (as Ni & insoluble)	1.5 (resp metal), 0.2 (resp inorganics)
Silicon	15 (total dust) 5 (resp)	10
Zinc	5.0 (as ZnO fume)	2 (as ZnO)
	15 (total dust) 5 (resp)	

### 8.2 Exposure Controls

Use ventilation adequate to keep exposures below recommended exposure limits.

### 8.3 General protective and hygienic measures

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

#### 8.3a Personal protective equipment

##### Protection of hands:

Wear gloves of adequate length to offer appropriate skin protection. Cut resistant gloves have been found to offer adequate protection for incidental contact.

##### Eye protection:

Wear approved eye protection (properly fitted dust- or splash-proof chemical safety glasses).

##### Respiratory protection:

Concentration in air of the various contaminants determines the extent of respiratory protection needed. Half-face, air-negative-pressure 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. Respirators should be selected by and used under the direction of a trained health and safety professional, following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2).

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## SECTION IX - PHYSICAL/CHEMICAL CHARACTERISTICS

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### General Information

Appearance	Form: Metallic Color: Gray Odor: None
pH-value at 20°C (68 °F):	Not applicable
Boiling point/Boiling range:	Not applicable
Melting point/Freezing Point:	~2750°F (~1510°C)
Flash point:	Not applicable
Auto igniting:	Product is not self-igniting
Vapor pressure at 21°C (70°F)	Not available
Density at 25°C (77 °F):	Not available
Solubility in Water:	Insoluble
VOC content:	Not applicable

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## SECTION X – STABILITY AND REACTIVITY

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### 10.1 Reactivity

No dangerous reaction known under conditions of normal use.

### 10.2 Chemical stability

Stable under normal storage conditions. Keep in dry storage.

### 10.3 Possibility of hazardous reaction

No dangerous reaction known under conditions of normal use.

### 10.4 Thermal decomposition / conditions to be avoided

No decomposition if used according to specifications.

### 10.5 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.

### 10.6 Hazardous Decomposition or By-products

Thermal oxidative decomposition of steel products can produce flames containing oxides of iron and manganese as well as other alloying elements.

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## SECTION XI – TOXICOLOGICAL INFORMATION

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**11.1 Exposure Routes:** Skin contact, skin adsorption, eye contact, inhalation, or ingestion.

**11.2 Symptoms related to physical/chemical/toxicological characteristics:**

**Inhalation:** As sold/shipped is not likely form of exposure

**Skin contact:** As sold/shipped is not likely form of exposure.

**Eye Contact:** As sold/shipped is not likely form of exposure

**Ingestion:** As sold/shipped is not likely form of exposure.

**11.3 Delayed, immediate and chronic effects of short-term and long-term exposure**

This formed solid metal product poses little or no immediate health or fire hazard. When product is subjected to welding, burning, melting, sawing, brazing, grinding or other processes, potentially hazardous airborne particulate and fumes may be generated. The hazards identified below are relevant to these processes.

### Short Term

Skin Corrosion/Irritation: Not corrosive.

Skin Sensitization: May cause an allergic skin reaction.

Eye Damage/Irritation: Causes eye irritation.

Respiratory Sensitization: Not available  
Specific Target Organ Toxicity-Single Exposure: (Category 3) May cause an allergic skin reaction.  
Aspiration Hazard: Not available  
Harmful if swallowed.

### Long Term

Carcinogenicity: May cause cancer through chronic inhalation of dust or fumes.  
Germ Cell Mutagenicity: Not available  
Reproductive Toxicity: Toxic to reproduction – Category 2. May damage fertility or the unborn child.  
Specific Target Organ Toxicity- Repeated Exposure: (Category 1) Causes damage to lungs through prolonged/repeated exposure of dust or fumes.  
Synergistic/Antagonistic Effects: Not available.

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## SECTION XII – ECOLOGICAL INFORMATION

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### 12.1 Ecotoxicity

No further relevant information available.

### 12.2 Persistence and degradability

No further relevant information available.

### 12.3 Bioaccumulative potential:

No further relevant information available.

### 12.4 Mobility in soil

No further relevant information available.

### 12.5 Other Adverse Effects

No further relevant information available.

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## SECTION XIII – DISPOSAL CONSIDERATIONS

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### 13.1 Waste Disposal Method

The material should be recycled whenever possible, but may be land filled. This product is not classified as a hazardous waste under the authority of the RCRA (40CFR 261) or CERCLA (40CFR 117&302). Disposal must be made in accordance with local, state and federal regulations.

### 13.2 Other disposal considerations

#### Uncleaned packaging

**Recommendation:** Disposal must be made in accordance with local, state and federal regulations.

**Recommended cleansing agent:** Not applicable

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## SECTION XIV – TRANSPORT INFORMATION

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	DOT (U.S.)	TDG (Canada)
UN-Number	Not Regulated	Not Regulated
UN proper shipping name	Not Regulated	Not Regulated
Transport Hazard Class (es)	Not Regulated	Not Regulated
Packing Group (if applicable)	Not Regulated	Not Regulated

### 14.1 Environmental hazards:

Not Available

### 14.2 Transport in bulk according to Annex II of Marpol 73/78 and the IBC Code

Not available

### 14.3 Special precautions for user

Do not handle until all safety precautions have been read and understood.

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## SECTION XV – OTHER REGULATORY INFORMATION

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### 15.1 Safety, Health and Environmental Regulations/Legislations specific for the chemical

#### Canada

**WHMIS Classification:** Considered to be a hazardous material under the Hazardous Products Act as defined by the Hazardous Products Regulations and subject to the requirements of Health Canada's Workplace Hazardous Material Information (WHMIS). This document complies with the WHMIS requirements of the Hazardous Products Act (HPA) and the HPR.

### 15.2 US Federal Information

#### SARA 302/311/312/313 Components

The product 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	% by Weight
7440-47-3	Chromium	1.0 max
7440-50-8	Zinc	<0.1 max
7439-96-5	Manganese	2.0 max
7440-02-0	Nickel	0.4 max

### 15.3 State Right to Know Laws

#### California Prop. 65 Components



**WARNING:** This product can expose you to chemicals including nickel which is known to the State of California to cause cancer and hexavalent chromium compounds which are known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

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## SECTION XVI – OTHER INFORMATION

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**NOTE:** The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to the information contained herein.

Prepared by

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**End of SDS**