

**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION INFORMATION**
**Product Name:** GALVALUME SHEET

**Synonym(s):** Galvalume Steel

**Severstal Sparrows Point LLC**

1430 Sparrows Point Blvd., Sparrows Point, MD 21219

For Additional Information, Contact: (410) 388-4764

**Emergency Phone Number:**

Severstal Sparrows Point Police (410) 388-7761

**2. COMPOSITION INFORMATION ON INGREDIENTS**

COMPONENTS	CAS No.	Wt. %	OSHA PEL (mg/M <sup>3</sup> )	ACGIH TLV (mg/M <sup>3</sup> )	LD50 or LC50 Species/Route
<b>Base Metal</b>					
Iron (Fe)	7439-89-6	>91	10 - Iron Oxide Fume	5 - Iron Oxide Fume as Fe	5.4 gm/kg mouse/oral
Carbon (C)	7440-44-0	0.02 - 0.15	Not Established	Not Established	No Information
Manganese (Mn)	7439-96-5	0.15 - 0.9	5 - Ceiling as Mn	5 - Dust as Mn 1 - Fume as Mn 3 - Fume as Mn (STEL)	9 gm/kg rat/oral
Silicon (Si)	7440-21-3	0.001-0.03	15 - Total Dust 5 - Respirable Fraction	10	No Information
<b>Metallic Coating</b>		0.5 - 8.0			
@ Aluminum (Al)	7429-90-5	51 - 58	10 - Total Dust 5 - Respirable Fraction	10 - Metal Dust as Al 5 - Fume as Al	No Information
@ Zinc (Zn)	7440-66-6	40 - 48	5 - Fume as ZnO	5 - Fume as ZnO	No Information

Material may contain trace or residual elements. The following are typical percentages for the elements identified: boron 0.001%, chromium 0.02%, copper 0.02%, molybdenum 0.006%, nickel 0.02%, niobium (columbium) 0.04%, phosphorus 0.04%, sulfur 0.015%, tin 0.004%, titanium 0.06%, and vanadium 0.001%.

@ SARA Reportable - See Section 15. Regulatory Information.

**3. HAZARDS IDENTIFICATION**

**Potential Health Effects:** Galvalume steel products in their usual physical form do not pose a health hazard. Inhalation of metal dust and fume may result from further processing of the material by user, particularly during welding, burning, grinding, and machining activities, and should be evaluated by an industrial hygienist. Presented below are the potential health effects that have been identified for the ingredients listed which are of an industrial hygiene significance.

**Aluminum (Al):** Long-term excessive inhalation exposure to Al dusts or fumes has been associated with a fibrotic lung condition known as Shaver's disease; however, the evidence for this is not conclusive since affected workers were exposed to other substances (such as silica) as well. Symptoms of this condition may include shortness of breath, cough, and fatigue.

**Iron Oxide:** Long-term excessive inhalation exposure to iron oxide fume or dust has been associated with a benign lung condition known as siderosis. No physical impairment of lung function has been linked to siderosis.

**Zinc (Zn):** Acute overexposure to zinc oxide fumes can result in metal fume fever, a temporary flu-like illness with symptoms such as dizziness, chills, fever, headache, and nausea.

**Usual Route(s) of Entry:** Inhalation

**Medical Conditions Possibly Aggravated:** Individuals with chronic diseases or disorders of the respiratory system should consult a physician regarding workplace exposure to ingredients.

Carcinogen References: IARC NTP OSHA  
Not Applicable

**4. FIRST AID MEASURES**

**Eye:** Treat for foreign body in the eye. Seek medical attention.

**Skin:** Not anticipated to pose a significant skin hazard. However, should dermatitis develop, wash affected area thoroughly with mild soap and water. If irritation or other symptoms develop, seek medical attention.

**Ingestion:** Not considered an ingestion hazard.

**Inhalation:** Remove from excessive exposure levels. Seek medical attention. Give artificial respiration if breathing has stopped.

#### 5. FIRE FIGHTING MEASURES

Steel products do not present fire or explosion hazards under normal conditions. Molten metal may react violently with water. High concentrations of metallic fines in the air may present an explosion hazard.

Fire fighters are to wear full protective equipment, including full bunker gear and SCBA respiratory protection.

#### 6. ACCIDENTAL RELEASE MEASURES

Any excess product can be recycled for further use, disposed in an appropriately permitted waste landfill, or disposed by other methods which are in accordance with local, state, and federal regulations.

#### 7. HANDLING AND STORAGE

**Work Practices:** Use lifting and work devices, e.g., crane, hoist, etc., within rated capacities and in accordance with manufacturer's instructions when handling these products.

Should be handled in ways to minimize generation of airborne dust and fume.

Use appropriate safety precautions to prevent slips or falls on steel surfaces wetted by oil, water, or other liquids that are used as roofing, decking or other walking or working surfaces. Vanishing oil applied to the material must be permitted to evaporate or be removed prior to use.

Nonmetallic coatings, i.e. oils, paints, epoxies, laminates, etc. may be applied (generally at the customer's request) to the surface of these products. Burning or welding on steel products with nonmetallic coatings may produce emissions which may cause eye and respiratory tract irritation or other respiratory system effects. The possible presence of these coatings should be recognized and considered when evaluating potential employee health hazards and exposures during handling and welding or other dust/fume generating activities. Typical nonmetallic coatings include severely hydrotreated light and heavy naphthenic oils. Prolonged contact with these oils may cause skin irritation and should be avoided.

#### 8. EXPOSURE CONTROLS /PERSONAL PROTECTION

**Engineering Controls (Ventilation, etc.):** Provide ventilation sufficient to maintain exposure levels below the applicable exposure limits.

When airborne emissions may occur due to further processing: (1) avoid breathing dust and fume, (2) evaluate potential employee exposure, (3) minimize generation of airborne emissions, (4) maintain surfaces free as practical of accumulated material, (5) use protective clothing as specified by an industrial hygienist or safety professional where exposure levels may be excessive, (6) do not smoke in work area, (7) wash hands before eating, drinking or smoking and after handling, (8) change contaminated clothing before leaving work premises.

Removal of surface coatings should be considered prior to welding or other fume generating activities.

**Eye Protection:** Use safety glasses and/or other protective eyewear as specified by a safety professional where risk of eye injury is present.

**Skin Protection:** Not anticipated to pose significant skin hazard. Use gloves (i.e., cotton, leather or kevlar) and/or protective clothing (i.e., Tyvek, cotton) as specified by an industrial hygienist or safety professional where exposure levels are excessive or where handling material could result in punctures or cuts to the hands or arms.

**Respiratory Protection:** When engineering controls are not feasible or sufficient to lower exposure levels below the applicable exposure limit, use a NIOSH-approved respirator which protects against dust or fume as specified by an industrial hygienist or qualified safety professional in accordance with manufacturer instructions and use limitations.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State:** Solid  
**Specific Gravity:** 7.6 to 7.8  
**Appearance and Odor:** Bright, spangled solid; no odor  
**Melting Point:** 2800°F

### 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable  
**Conditions to Avoid:** Acids  
**Hazardous Decomposition Products:** Metal oxides of listed ingredients and carbon monoxide from nonmetallic coatings.  
**Hazardous Polymerization:** Will not occur

### 11. TOXICOLOGICAL INFORMATION

See available LD50 and/or LC50 information in Section 2.

### 12. ECOLOGICAL INFORMATION

Steel products in their usual physical form do not pose an ecological hazard.

### 13. DISPOSAL CONSIDERATION

Any excess product can be recycled for further use, disposed in an appropriately permitted waste landfill, or disposed by other methods which are in accordance with local, state, and federal regulations.

### 14. TRANSPORT INFORMATION

Not a hazardous material for DOT shipping.

### 15. REGULATORY INFORMATION

**SARA Title III Hazard Categories:** This material is considered, under applicable definitions, to meet the following categories.

- ( ) Immediate (acute) Health
- ( ) Reactive
- (x) Delayed (chronic) Health
- ( ) Fire
- ( ) Sudden Release of Pressure

**SARA 313 Information:** This product contains chemicals subject to the reporting requirements of Section 313 of TITLE III of the Superfund Amendments & Reauthorization Act (SARA) of 1986 and 40 CFR, Part 372 (see Section 2; the @ symbol denotes chemicals subject to these reporting requirements). Please also note that if you repackage or otherwise redistribute this product to industrial customers, SARA 313 requires that a notice be sent to those customers.

### 16. OTHER INFORMATION

The following label hazard ratings are recommended:

NFPA		HMIS	
Fire	0	Health	2
Health	1	Flammability	0
Reactivity	0	Reactivity	0
Specific Hazard	None		

Our objective in sending this information is to help you protect the health and safety of your personnel and to comply with the OSHA Hazard Communication Standard and Title III of the Superfund Amendment and Reauthorization Act of 1986. SEVERSTAL SPARROWS POINT, LLC MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY, ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY IMPLIED WARRANTIES OTHERWISE ARISING FROM COURSE OF DEALING OR TRADE.

# GALVALUME SHEET

## SEVERSTAL SPARROWS POINT, LLC

Contains: Aluminum (CAS 7429-90-5), Carbon (CAS 7440-44-0), Iron (CAS 7439-89-6), Manganese (CAS 7439-96-5), Silicon (CAS 7440-21-3) and Zinc (CAS 7440-66-6)

### CAUTION

**Hazards:** Inhalation of metal dust and fume may result from further processing of the material by the user, particularly during welding, burning, cutting, grinding and machining activities. Long-term excessive exposure to the fume or dust may cause respiratory system effects.

#### **Recommended Handling Procedures:**

- Avoid creating excessive dust or fume levels. Mechanical ventilation or personal protective equipment (i.e., eye protection, protective clothing and NIOSH-approved respiratory protection) may be necessary during welding, burning, grinding and other dust/fume generating activities.
- Use appropriate safety precautions to prevent slips or falls on steel surfaces wetted by oil, water, or other liquids that are used as roofing, decking or other walking or working surfaces. Vanishing oil applied to the material must be permitted to evaporate or be removed prior to use.
- The presence of nonmetallic coatings (for example, oils, paints, epoxies, laminates, etc.) on these products should be considered when evaluating potential employee health hazards. Removal of surface coatings should be considered prior to welding or other dust/fume generating activities. Avoid prolonged skin contact with nonmetallic coating oils

### FIRST AID AND MEDICAL EMERGENCY PROCEDURES

**Eye Contact:** Treat for foreign body in the eye. Seek medical attention.

**Skin Contact:** Not anticipated to pose a significant skin hazard. However, should dermatitis develop, wash affected area with mild soap and warm water. Seek medical attention if conditions persist.

**Inhalation:** Remove from excessive exposure levels. Seek medical attention. Give artificial respiration if breathing has stopped.

**Ingestion:** Not considered an ingestion hazard.

*September 26, 2008*

*For more detailed health and safety information, read the Material Safety Data Sheet (MSDS) for this product.*

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