SAFETY DATA SHEET

ZINC METAL COATED STEEL STRIP AND SHEET

Infosafe No.: HXSV1
Version No.: 4.2
DRAFT Date : 12/01/2018
DRAFT by: BlueScope Steel Limited

1. IDENTIFICATION

GHS Product Identifier
ZINC METAL COATED STEEL STRIP AND SHEET

Company Name
BlueScope Steel Limited (ABN 16 000 011 058)

Address
Level 11, 120 Collins St Melbourne
VIC 3000 Australia

Telephone/Fax Number
Telephone: 1800800789 (Australia Only)

Emergency phone number
02 4275 7522 (24h)

E-mail Address
steeldirect@bluescopesteel.com

Recommended use of the chemical and restrictions on use
General fabrication, Roll Formed Structural Sections, Pipe and Tube Fabrication, Automotive Components

Other Names

Name	Product Code
GALVABOND® steel, GALVAFORM® steel, GALVASPAN® steel, ZINCFORM® steel, ZINC HI-TEN® steel, TUBEFORM® steel and ZINCMATTE® steel	

Disclaimer
This SDS summarises to BlueScope Steel Limited's (BSL) best knowledge at the date of issue, the health and safety hazards of the relevant materials. As BSL is not aware of and can't control the conditions under which the material may be used, each user is responsible for making their own assessment of the appropriateness of the material for their planned use and to implement appropriate controls.

2. HAZARD IDENTIFICATION

GHS classification of the substance/mixture
Not classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) including Work, Health and Safety Regulations, Australia..
Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Precautionary statement – Prevention
P260 Do not breathe dust/fume.
P280 Wear protective gloves/protective clothing/eye protection.

Precautionary statement – Response
P370 In case of fire and/or explosion do not breathe fumes.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Information on Composition
Steel strip with a hot dipped zinc metallic coating

Ingredients

Name	CAS	Proportion
Base Metal		-
Steel	12597-69-2	100 %
==========	==========	==========
Metallic Coating		-
Zinc Coating		100-900g/m2 total both sides
Aluminium	7429-90-5	<1 %
Antimony	7440-36-0	<0.2 %
Zinc	7440-66-6	Balance
==========	==========	==========
Surface Treatment		-
Chromated products only:		-
Hexavalent Chromium Compounds	Mixture	Max 60mg/m2 per side
Oiled Products only: Corrosion inhibiting oil	Mixture	~1500mg/m2 total both sides

4. FIRST-AID MEASURES

Inhalation
It is unlikely that this product can be inhaled in the supplied form. If exposed to fumes from welding operations, remove to fresh air.

Ingestion
It is unlikely that this product can be ingested in the supplied form.

Skin
It is unlikely that this product will cause irritation to the skin in the supplied form. Wash affected area thoroughly with soap and water.

Eye contact
It is unlikely that this product will enter the eye(s) in the supplied form. If steel splinters enter the eye, obtain medical attention immediately.

First Aid Facilities
Eyewash and normal washroom facilities.

Advice to Doctor
Treat symptomatically.

Other Information
For advice in an emergency, contact a Poisons Information Centre or a doctor at once.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use appropriate fire extinguisher for surrounding environment.

Hazards from Combustion Products
When burnt or overheated the product and packaging may release combustion products including carbon monoxide and metallic oxides.

Specific Hazards Arising From The Chemical
Non combustible material. Some parts of the packaging are combustible.

Decomposition Temperature
Not available

Precautions in connection with Fire
Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) operated in positive pressure mode and full protective clothing to prevent exposure to vapours or fumes.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures
Product should be picked up with suitable lifting equipment. Wear appropriate gloves to avoid cuts when handling.

7. HANDLING AND STORAGE

Precautions for Safe Handling
Product is expected to be formed and otherwise fabricated. This may include cutting, welding, painting and powder coating. Product should be picked up with suitable lifting equipment. Wear appropriate gloves to avoid cuts when handling. If welding this product there is a possibility of zinc fume generation.
Maintain high standards of personal hygiene i.e.washing hands prior to eating, drinking, smoking or using toilet facilities.

Conditions for safe storage, including any incompatibilities
The material as supplied is not known to be hazardous to the environment. Product must be stored and secured to prevent movement during storage and transport. Store in a dry environment to prevent corrosion in storage. For more information on storing this product, refer to the document 'Recommended Practices for Storage and Handling of BlueScope Steel's products' available from BlueScope Steel sales offices and website.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limit values
No exposure standards have been established for this material, however, the TWA exposure standards for dust not otherwise specified is 10 mg/m³.
Aluminium (welding fumes): 5 mg/m³ TWA
Iron oxide (fume): 5 mg/m³ TWA
Zinc oxide (fume): 5 mg/m³ TWA; 10 mg/m³ STEL
Chromium (VI) compounds: 0.05 mg/m3 TWA
TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.
STEL (Short Term Exposure Limit): The average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.
Source: Safe Work Australia
Any operation, which has the potential of generating particulates including dust or fume, requires a risk assessment to be undertaken. This may require the involvement of an experienced Occupational Hygienist.

Biological Limit Values
No biological limits allocated.

Appropriate engineering controls
Use with good general ventilation. No special ventilation is required for the product as supplied.
For processing operations that generate dust or fumes, the use of engineering controls may be necessary to maintain air concentrations below the relevant National Exposure Standards.

Respiratory Protection
Not generally required. If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable filter should be used.
Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices;

and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Eye Protection
Safety glasses with side shields, chemical goggles or full-face shield as appropriate should be used. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection devices should conform to relevant regulations.
Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

Hand Protection
Appropriate gloves should be worn when handling strip or sheet steel, to avoid cuts from splinters, burrs, sharp edges, and contact with any surface treatments including oils if they are present. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken.
Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Body Protection
Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Properties	Description	Properties	Description
Appearance	Thin steel coil or sheet with metallic silver appearance	**Odour**	Not applicable
Decomposition Temperature	Not available	**Melting Point**	Base metal: 1500°C (approximate)
Boiling Point	Not applicable	**Solubility in Water**	Insoluble
Specific Gravity	7.85	**pH**	Not applicable
Vapour Pressure	Not applicable	**Vapour Density (Air=1)**	Not applicable
Evaporation Rate	Not applicable	**Odour Threshold**	Not applicable
Viscosity	Not applicable	**Partition Coefficient: n-octanol/water**	Not applicable
Flash Point	Not applicable	**Flammability**	Non combustible material.
Auto-Ignition Temperature	Not applicable	**Explosion Limit - Upper**	Not applicable
Explosion Limit - Lower	Not applicable	**Kinematic Viscosity**	Not applicable
Dynamic Viscosity	Not applicable		

10. STABILITY AND REACTIVITY

Reactivity
Refer to 'Hazardous Reactions' below

Chemical Stability
Stable under normal conditions of storage and handling.

Conditions to Avoid
None expected, when used as intended.

Incompatible materials
Strong acids, strong alkalis

Hazardous Decomposition Products
When burnt or overheated the product and packaging may emit carbon monoxide, metallic oxides and other products of combustion.

Possibility of hazardous reactions
Contact of metallic substances with acids and alkalis liberates hydrogen gas.

Hazardous Polymerization
Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicology Information
No toxicity data available for this material.

Ingestion
It is unlikely that this product can be ingested in the supplied form.

Inhalation
It is unlikely that this product can be inhaled in the supplied form. Inhalation of product vapours may cause irritation of the nose, throat and respiratory system.
If welding this product there is a possibility of zinc fume generation.

Skin
It is unlikely that this product will cause irritation to the skin in the supplied form. The surface oil used for corrosion protection may irritate the skin in sensitive individuals. The surface treatment used for corrosion protection contains small quantities of chromium (VI) compounds.

Eye
It is unlikely that this product will enter the eye(s) in the supplied form.

Respiratory sensitisation
Not expected to be a respiratory sensitiser.

Skin Sensitisation
Not expected to be a skin sensitiser.

Germ cell mutagenicity
Not considered to be a mutagenic hazard.

Carcinogenicity
Not considered to be a carcinogenic hazard.

Reproductive Toxicity
Not considered to be toxic to reproduction.

STOT-single exposure
Not expected to cause toxicity to a specific target organ.

STOT-repeated exposure
Not expected to cause toxicity to a specific target organ.

Aspiration Hazard
Not expected to be an aspiration hazard.

Other Information
Prolonged contact with the surface oil used for corrosion protection may irritate the skin in sensitive individuals. The surface treatment used for corrosion protection contains small quantities of chromium (VI) compounds. Prolonged skin contact may lead to chromium sensitisation in sensitive individuals.

12. ECOLOGICAL INFORMATION

Ecotoxicity
No ecological data available for this material.

Persistence and degradability
Not available

Mobility
Not available

Bioaccumulative Potential
Not available

Other Adverse Effects
Not available

Environmental Protection
The material as supplied is not known to be hazardous to the environment.

13. DISPOSAL CONSIDERATIONS

Disposal considerations
This product and packaging can be recycled. If not recycled, any disposal of waste product should be in accordance with local regulations.

14. TRANSPORT INFORMATION

Transport Information
Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)
Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.
Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

U.N. Number
None Allocated

UN proper shipping name
None Allocated

Transport hazard class(es)
None Allocated

Packing Group
None Allocated

UN Number (Air Transport, ICAO)
None Allocated

IATA/ICAO Proper Shipping Name
Not dangerous for conveyance under IATA code

IATA/ICAO Hazard Class
None Allocated

IATA/ICAO Packing Group
None Allocated

IMDG UN No
None Allocated

IMDG Proper Shipping Name
Not dangerous for conveyance under IMO/IMDG code

IMDG Hazard Class
None Allocated

IMDG Pack. Group
None Allocated

IMDG Marine pollutant
No

Transport in Bulk
Not available

Special Precautions for User
Not available

15. REGULATORY INFORMATION

Regulatory information

Not classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) including Work, Health and Safety Regulations, Australia..
REGULATION (EC) No 1907/2006 (REACH) Article 7.1 - Not Applicable
REGULATION (EC) No 1907/2006 (REACH) Article 7.2 - Not Applicable
REGULATION (EC) No 1907/2006 (REACH) Article 33 – Not Applicable

Poisons Schedule
Not classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

16. OTHER INFORMATION

Date of preparation or last revision of SDS
SDS amendment: February 2018
5. Fire-fighting measures
8. Exposure controls/personal protection
SDS Reviewed: January 2018 Supersedes: December 2012

References
Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.
Standard for the Uniform Scheduling of Medicines and Poisons.
Australian Code for the Transport of Dangerous Goods by Road & Rail.
Model Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.
Workplace exposure standards for airborne contaminants.
Adopted biological exposure determinants, American Conference of Industrial Hygienists (ACGIH).
Globally Harmonised System of Classification and Labelling of Chemicals.

Other Information
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