



SAFETY DATA SHEET

Humes Zinc Coated Steel Strip, Sheet and Pipe

SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

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| Product Name: | Humes Zinc Coated Steel Strip, Sheet and Pipe |
| Other Names: | Metallic coated steel, Hot dipped steel, Galvanised iron |
| Recommended Use: | Metal fabrication, roofing and wall cladding |
| Applicable In: | Australia |
| Supplier: | Holcim (Australia) Pty Ltd ABN 87 099 732 297 |
| Address: | Level 8, Tower B, 799 Pacific Hwy, Chatswood, NSW 2067, Australia |
| Telephone: | +61 2 9412 6600 (8-00 am to 5-30 pm Mon to Fri only) |
| Facsimile: | +61 2 9412 6601 |
| Website: | www.humes.com.au |
| Emergency Phone Number: | 000 Fire Brigade and Police (available in Australia only) |
| Poisons Information Centre: | 13 11 26 (available in Australia only) |

This Safety Data Sheet (SDS) is issued by the Supplier in accordance with National standards and guidelines from Safe Work Australia (SWA – formerly ASCC/NOHSC). The information in it must not be altered, deleted or added to. The Supplier will not accept any responsibility for any changes made to its SDS by any other person or organization. The Supplier will issue a new SDS when there is a change in product specifications and/or Standards, Codes, Guidelines, or Regulations.

SECTION 2: HAZARD IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE: In its delivered state, the product is classified as **Non-Hazardous** according to the criteria of Safe Work Australia (SWA – formerly ASCC/NOHSC) Approved Criteria For Classifying Hazardous Substances [NOHSC:1008] 3rd Edition.

Cutting, grinding, burning or welding (“hot work”) Zinc Coated Steel Strip, Sheet and Pipe may result in fumes from the coating on the product, together with other materials, e.g. welding rod, in the burning area. Fumes from hot work are classified as **Hazardous**. Recommendations on Exposure Controls / Personal Protection (see Section 8 below) should be followed.

Cutting and grinding Zinc Coated Steel Strip, Sheet and Pipe may generate dust which contains zinc dust from the coating on the product. Zinc dust is classified as **Hazardous** to the aquatic environment (see Section 12). Recommendations on clean-up and disposal (see Sections 6 and 13 below) should be followed.

Humes Zinc Coated Steel Strip, Sheet and Pipe is classified as **Non-Dangerous** Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

GHS CLASSIFICATION: **Not classified as Hazardous.** Because this product is classified as Non-Hazardous as delivered, a Safety Data Sheet (SDS) is not required under the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) or Australian Regulations. Humes has elected to issue this SDS for the information of users, installers and the community. It has been formatted according to the GHS, as adopted by Safe Work Australia.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name: | Synonyms: | Proportion: | CAS Number: |
|------------------------|-----------|-------------|-------------|
| Iron | Steel | >80% | 7439-89-6 |
| Zinc (as zinc coating) | | 1-20% | 7440-66-6 |

Note: The zinc coating on this product may contain traces of Aluminium, Antimony, Iron, and Lead. As a result of various anti-corrosion treatments, the surface of this product may have traces of Hexavalent chromium (CrVI), Zinc phosphate, and Mineral Oil.

SECTION 4: FIRST AID MEASURES

The following advice refers **ONLY** to exposure to fumes from hot work with these products.

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| Eyes: | If irritation occurs, seek medical attention. |
| Skin: | If irritation occurs seek medical attention. Wash contaminated skin with soap and water. |
| Inhaled: | Remove from further exposure. If respiratory irritation, dizziness or nausea occurs, seek immediate medical assistance. Give artificial respiration if breathing has stopped. |
| Advice to Doctor: | Be aware of risk of respiratory distress, asthma and pneumonitis and metal fume fever following exposure to fumes from cutting, welding, grinding or burning. |

SECTION 5: FIRE FIGHTING MEASURES

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| Suitable extinguishing media: | Use carbon dioxide, foam, dry chemical or water spray as required for fire in surrounding materials. |
| Specific hazards: | See precautions for hot work when toxic fumes are generated. This product can react with mineral acids and alkalis liberating explosive hydrogen gas. Stibine may be generated on reaction with acids in some circumstances. |
| Special protective equipment and precautions for firefighters: | Fire fighters should wear self-contained breathing apparatus as required by surrounding fire and fire conditions. |
| HAZCHEM Code: | None allocated |

SECTION 6: ACCIDENTAL RELEASE MEASURES

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| Personal precautions, protective equipment and emergency procedures: | No specific precautions required. |
| Environmental precautions: | Keep dust from cutting or grinding activities out of storm water and sewer drains and watercourses. |
| Methods and materials for containment and cleaning up: | Recover waste material, recycle, or dispose of in accordance with local authority guidelines. |

SECTION 7: HANDLING AND STORAGE

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| Precautions for safe handling: | Manual handling should be in accordance with Manual Handling Regulations and Codes. |
| Conditions for safe storage: | There are no special storage requirements. |
| Incompatibilities: | This product can react with mineral acids and alkalis liberating explosive hydrogen gas. If zinc coatings are dissolved in acid, stibine gas (CAS No: 7803-52-3) may be generated. |

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

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| Exposure Standards: | <p>Workplace Exposure Standards for Airborne Contaminants, Safe Work Australia</p> <p>During cutting, grinding, burning or welding of these products, the following Exposure Standards apply:</p> <p>Zinc oxide fume: TWA – 5 mg/m³, STEL – 10 mg/m³</p> <p>Iron oxide fume: TWA – 5 mg/m³</p> <p>Stibine: TWA – 0.1 ppm, 0.51 mg/m³</p> |
| Notes on Exposure Standards: | <p>All occupational exposures to atmospheric contaminants should be kept to as low as reasonably practicable and in all cases to below the Workplace Exposure Standard (WES).</p> <p>TWA (Time Weighted Average): the time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.</p> <p>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 work day.</p> |
| Biological Limit Values: | No biological limit allocated. |
| ENGINEERING CONTROLS | |
| <input type="checkbox"/> Ventilation: | All hot work with Zinc Coated Steel Strip, Sheet and Pipe should be carried out in such a way as to minimise exposure to fume. Local mechanical ventilation (e.g. fans) should be provided to carry fume away from the breathing zone of the operator. |
| PERSONAL PROTECTION | |
| <input type="checkbox"/> Skin Protection: | Wear standard duty leather gloves (AS 2161), coverall clothing, and boots to avoid physical injury. |
| <input type="checkbox"/> Eye Protection: | Wear non-fogging gas resistant goggles (AS/NZS 1336) when working with this product. |
| <input type="checkbox"/> Respiratory Protection: | Avoid inhaling fume during hot work. Wear a respirator conforming with Australian Standards AS/NZS 1715 and AS/NZS 1716 when exposed to fume. |

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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| Appearance: | Thin sheet or coil with metallic silver appearance |
| Odour: | None |
| Odour threshold: | Not applicable |
| pH: | Not applicable |
| Melting point: | Zinc surface 419°C; Iron 535°C |
| Initial boiling point and range: | Not applicable |
| Flash point: | Not applicable |
| Evaporation rate: | Not applicable |
| Flammability: | Non-flammable |
| Upper/lower flammability or explosive limits: | Not applicable |

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| Vapour pressure: | Not applicable |
| Vapour density: | Not applicable |
| Specific gravity (Relative density): | 7.86 |
| Solubility: | Insoluble |
| Partition coefficient (n-octanol/water): | Not applicable |
| Viscosity: | Not applicable |
| Auto-ignition temperature: | Not applicable |
| Decomposition temperature: | Not determined |
| % Volatiles: | 0% |
| Volatile Organic Compounds (VOC) Content: (as specified by the Green Building Council of Australia) | 0% |

SECTION 10: STABILITY AND REACTIVITY

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| Chemical Stability: | Stable under normal conditions |
| Hazardous Reactions: | See above |
| Conditions to avoid: | None |
| Incompatible Materials: | This product can react with mineral acids and alkalis liberating explosive hydrogen gas. Stibine (toxic) may be generated on reaction with acids in some cases. |
| Hazardous Decomposition Products: | See above, and precautions for hot work when toxic fumes are generated. |

SECTION 11: TOXICOLOGICAL INFORMATION

Health Effects listed apply ONLY to effects from exposure to fumes generated during hot work.

Health effects information is based on reported effects in use from overseas and Australian reports.

Health Effects: Acute (short term)

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| Swallowed: | Unlikely under normal industrial conditions. |
| Eyes: | Fumes may be irritating to the eyes resulting in redness and watering. |
| Skin: | Skin is normally covered during hot operations and no effects of fumes on skin are reported. |
| Inhaled: | Fumes from hot work may give rise to metal fume fever (zinc fume fever), irritation of the lungs, and may cause pneumonitis. |

Health Effects: Chronic (long term)

No chronic health effects reported.

SECTION 12: ECOLOGICAL INFORMATION

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| Eco-toxicity: | Product as delivered is of low eco-toxicity. Dust generated from the zinc coating is hazardous to the aquatic environment. |
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| Persistence and Degradability: | Product as delivered is persistent and is not bio-degradable. |
| Bioaccumulative potential: | There is no evidence to suggest bioaccumulation will occur. |
| Mobility in soil: | Product as delivered is insoluble and has a low mobility. |

SECTION 13: DISPOSAL CONSIDERATIONS

Recover waste material, recycle, or dispose of in accordance with local authority guidelines. Keep dust from cutting or grinding activities out of storm water and sewer drains and watercourses.

SECTION 14: TRANSPORT INFORMATION

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| UN number: | None allocated |
| UN Proper Shipping Name: | None allocated |
| Class and Subsidiary Risk : | None allocated |
| Packaging Group: | None allocated |
| Marine Pollutant: | No |
| Special Precautions for User: | None |
| HAZCHEM code: | None allocated |

SECTION 15: REGULATORY INFORMATION

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| Poisons Schedule: | Not scheduled |
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SECTION 16: OTHER INFORMATION

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| Date of revision of this SDS: | November 2016 |
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Australian Standards References:

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| AS/NZS 1336 | Recommended Practices for Occupational Eye Protection |
| AS/NZS 1715 | Selection, Use and Maintenance of Respiratory Protective Devices |
| AS/NZS 1716 | Respiratory Protective Devices |
| AS 2161 | Industrial Safety Gloves and Mittens (excluding electrical and medical gloves) |

Other References:

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| NOHSC:1008 (2004) | Approved Criteria for Classifying Hazardous Substances |
| Model Code of Practice | Preparation of Safety Data Sheets for Hazardous Chemicals, December 2011, Safe Work Australia. |
| Model Code of Practice | Labelling of Workplace Hazardous Chemicals, December 2011, Safe Work Australia. |
| Model Code of Practice | Managing Risks Of Hazardous Chemicals In The Workplace, July 2012, Safe Work Australia. |
| WHS | Guidance on the Classification of Hazardous Chemicals under the WHS Regulations, April 2012, Safe Work Australia. |
| ADG Code | Australian Code for the Transport of Dangerous Goods by Road and Rail, 7 th edition, National Transport Commission. |

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| WES | Workplace Exposure Standards For Airborne Contaminants, April 2013, Safe Work Australia. |
| WES | Guidance On The Interpretation Of Workplace Exposure Standards For Airborne Contaminants, April 2013, Safe Work Australia. |
| GHS | Globally Harmonized System of Classification and Labelling of Chemicals (GHS), 3 rd revised edition, United Nations, New York and Geneva, 2009. |
| GHS | Understanding the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), United Nations, New York and Geneva, 2010. |
| HSIS | Hazardous Substances Information System (HSIS), internet advisory service, Safe Work Australia. |
| HCL | GHS Hazardous Chemical Information List (HCL), internet advisory service, Safe Work Australia. |

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END OF SDS