

# Material Safety Data Sheet

## Uncontrolled Copy

### DURAGAL HOLLOW SECTIONS

**Infosafe No.** 1ST0J      **Issue Date** May 2006      **Status** ISSUED by ONESTNPM

#### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name** DURAGAL HOLLOW SECTIONS

**Product Code**

**Company Name** OneSteel Trading Pty Ltd - Newcastle Pipe Mills (ABN 50 007 519 646)

**Address** PO Box 156 Newcastle  
NSW 2300

**Emergency Tel.** 02 4935 5739

**Telephone/Fax Number** Tel: 02 4935 5118  
Fax: 02 4935 5115

**Recommended Use** As in-line hot dip galvanized steel sections for structural, machinery, construction applications etc.  
COATING USED: In-line hot-dip galvanized zinc, minimum average 100 g/m<sup>2</sup>, with the zinc surface passivated by a surface conversion treatment less than 1 micrometre thick.

Other Names	Name	Product Code
	DURAGAL CIRCULAR HOLLOW SECTIONS (CHS)	
	DURAGAL RECTANGULAR HOLLOW SECTIONS (RHS)	
	DURAGAL SQUARE HOLLOW SECTIONS (SHS)	
	DURAGAL RAIL, DURAGAL SILO SECTION, DURAGAL POST, DURAGAL FLOOR SECTIONS	

#### 2. HAZARDS IDENTIFICATION

**Hazard** Not classified as hazardous

**Classification**  
NON-HAZARDOUS SUBSTANCE.  
NON-DANGEROUS GOODS.

Hazard classification according to the criteria of NOHSC.  
Dangerous goods classification according to the Australia Dangerous Goods Code.

**Risk Phrase (s)** Not classified as hazardous

**Safety Phrase(s)** S22 Do not breathe dust.

**Other Information** FROM HEAT GENERATED FUME ONLY: With burning or welding, moderate amounts of fume are emitted which contain mostly visible finely divided zinc oxide (ZnO) and iron oxide (Fe<sub>2</sub>O<sub>3</sub>) fume. Fume flocculates as it ages. Small amounts of ozone and other gases may be emitted.

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

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#### Information on Composition

Ingredients	Name	CAS	Proportion
	Steel	7439-89-6	95-100 %
	Zinc	7440-66-6	0-5 %
	Manganese	7439-96-5	0.2-1.3 %
	Chromate passivation treatment, less than 1 micrometre (0.04 mil) thick, with 1-2 microgram Cr/cm <sup>2</sup>		0-0.1 %
	Internal Coatings: As rolled, 4 to 8 micrometres of Iron Oxide scale, or organic zinc rich paint, aim thickness 25 micrometres, or zinc phosphate primer, aim thickness 35 micron.		0-0.1 %

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### 4. FIRST AID MEASURES

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

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

**Skin** It is unlikely that this product will cause irritation to the skin in the as supplied form.  
For lacerations, clean and dress wound.

For burns, apply copious amounts of cool water.

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

**First Aid Facilities** Eye wash fountains and normal washroom facilities.

**Advice to Doctor** Treat symptomatically.

## 5. FIRE FIGHTING MEASURES

**Suitable Extinguishing Media** Use appropriate fire extinguisher for surrounding environment.

**Hazards from Combustion Products** The product as supplied is inert.

**Special Protective Equipment for fire fighters** Fire-fighters should wear full protective clothing and self contained breathing apparatus (SCBA).

## 6. ACCIDENTAL RELEASE MEASURES

**Emergency Procedures** Pick up mechanically or by hand tools.

## 7. HANDLING AND STORAGE

**Precautions for Safe Handling** Always wash hands before eating, drinking, smoking or using the toilet. See Section 8 Exposure Controls/Personal Protection for specific control recommendations.

**Conditions for Safe Storage** Store in a dry environment to prevent corrosion in storage.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards	Name	STEL (mgm3)	STEL (ppm)	TWA (mgm3)	TWA
	Steel			5	
	Zinc	10		5	
	Manganese 3			1	

<b>Biological Limit Values</b>	No biological limit allocated.
<b>Other Exposure Information</b>	<p>No exposure standards have been established for this material by the National Occupational Health And Safety Commission (NOHSC). However, all exposure should be kept to the least possible levels as over-exposure to any chemical may result in enhancement of pre-existing adverse medical conditions and/or allergic reactions. Exposure standards for individual constituents are listed above.</p> <p>TWA - the Time-Weighted Average airborne concentrations over an eight-hour working day, for a five-day working week over an entire working life. 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. According to current knowledge these concentrations should neither impair the health of, nor cause undue discomfort to, nearly all workers. Peak Limitation - a ceiling concentration which should not be exceeded over a measurement period which should be as short as possible but not exceeding 15 minutes. 'Sk' notice - absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur. These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. Exposure Standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.</p>
<b>Engineering Controls</b>	<p>No special ventilation is required for the product as supplied. For welding or cutting operations, local filtered extraction may be necessary to maintain the air concentration of fumes below the National Exposure Standards.</p> <p>Dust from processing operations should not be allowed to build up in the workplace and should be removed for disposal. If possible, cleanup should be undertaken using a vacuum with a high efficiency filter. Ensure dust generation during cleanup is minimized, using appropriate work practices.</p>
<b>Respiratory Protection</b>	Not normally required. However, if engineering controls are not effective in controlling airborne exposure then respiratory protective equipment should be used suitable for protecting against airborne contaminants. Final choice of appropriate breathing protection is dependant upon actual airborne concentrations and the type of breathing protection required will vary according to individual circumstances. Expert advice may be required to make this decision. 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.
<b>Eye Protection</b>	Safety glasses with side shields, goggles or full-face shield as appropriate recommended. Final choice of appropriate eye/face protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.
<b>Hand Protection</b>	Cut resistant or leather gloves should be worn when handling strip or sheet steel, to avoid cuts from splinters, burrs or sharp edges. A rubber dipped glove may be necessary to avoid skin contact with chromium surface treatments,

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.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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<b>Appearance</b>	Metal section, flat, channel or angle shapes.
<b>Melting Point</b>	1300°C (Steel)
<b>Boiling Point</b>	3000°C
<b>Solubility in Water</b>	Insoluble
<b>Specific Gravity</b>	7.7
<b>Vapour Pressure</b>	0 torr @ 20°C
<b>Vapour Density (Air=1)</b>	Not available.
<b>Flash Point</b>	Not applicable.
<b>Flammability</b>	Non-combustible
<b>Auto-Ignition Temperature</b>	Not applicable.
<b>Flammable Limits - Lower</b>	Not applicable.
<b>Flammable Limits - Upper</b>	Not applicable.

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## 10. STABILITY AND REACTIVITY

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<b>Chemical Stability</b>	Stable under normal conditions of use.
<b>Conditions to Avoid</b>	None known.
<b>Incompatible Materials</b>	None known.
<b>Hazardous Decomposition Products</b>	None known.
<b>Hazardous Reactions</b>	Not known

**Hazardous****Polymerization** Will not occur.

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## 11. TOXICOLOGICAL INFORMATION

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<b>Inhalation</b>	Not expected to be inhaled in the form supplied. Slitting and/or roll forming operations can generate dust particles from the resin coating which may cause irritation if inhaled.
<b>Ingestion</b>	Not expected to be swallowed in the form supplied.
<b>Skin</b>	Sharp burrs on the edges of steel products can cause lacerations to unprotected skin. Burns may result from contact with hot surfaces.
<b>Eye</b>	Not irritating to eyes in the form supplied. Dust: may cause mechanical irritation. May result in mild abrasion.
<b>Chronic Effects</b>	Chronic exposure to iron oxide fumes over the standard may lead to Siderosis which is a benign lung condition. Chronic exposure to manganese fumes over the standard may lead to disorders of the nervous and reproductive systems. Metal Fume Fever or 'zinc chills' is a self-limiting acute illness. No chronic effects are known.

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## 12. ECOLOGICAL INFORMATION

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<b>Ecotoxicity</b>	No data is available for this material.
<b>Persistence / Degradability</b>	No data is available for this material.
<b>Mobility</b>	No data is available for this material.
<b>Environment Protection</b>	The material as supplied is not known to be hazardous to the environment.

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## 13. DISPOSAL CONSIDERATIONS

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<b>Disposal Considerations</b>	Dispose of waste according to federal, E.P.A., state and local regulations or this material should be undertaken by a registered chemical disposal company. Assure conformity with all applicable regulations. This product can be recycled.
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## 14. TRANSPORT INFORMATION

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<b>Transport Information</b>	Not classified as a Dangerous Good, according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.
<b>Storage and Transport</b>	Not classified as dangerous goods.

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## 15. REGULATORY INFORMATION

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**Poisons  
Schedule**            Not Scheduled

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## 16. OTHER INFORMATION

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**Date of  
preparation or  
last revision of  
MSDS**            MSDS review: May 2006  
                      MSDS superseded: March 2000

**Contact  
Person/Point**    Site Contacts: Newcastle Pipe Mills  
                          Materials Laboratory Technician  
                          (02) 4935 5721

                          Kembbla Grange Oil and Gas Pipe  
                          Process manager  
                          (02) 4261 0210

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End of MSDS

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