Product Health and Safety
Data Sheets

Product:
Austenitic Stainless Steel Building Components. (Including Angles, Lintels, Reinforcing Bars, Special Fabrications and Wall Ties).

Material Analysis:
Various grades of Austenitic Stainless Steel, as listed below, are used.

% MAXIMUM CONTENT									
Grade	C	Si	Mn	P	S	Cr	Mo	Ni	Other
304	0.08	1.00	2.00	0.045	0.030	18.0/20.0	----	8.00/10.5	----
304L	0.03	1.00	2.00	0.045	0.030	18.0/20.0	----	8.00/10.5	----
316	0.08	1.00	2.00	0.045	0.030	16.0/18.0	2.00/3.00	10.0/14.0	----
316L	0.03	1.00	2.00	0.045	0.030	16.0/18.0	2.00/3.00	10.0/14.0	----
321	0.08	1.00	2.00	0.045	0.030	17.0/19.0	----	9.00/12.0	Ti 5 x Cmin
310	0.15	1.50	2.50	0.045	0.030	25.0/28.0	----	20.0/22.5	----
320	0.08	1.50	2.50	0.045	0.030	16.0/18.0	2.00/3.00	10.0/14.0	Ti 5 x Cmin

Hazards
When handling the product, there is a risk of laceration of the skin. Injury, including skin laceration and eye injury may occur when breaking open the strapping due to release of tension.

When subjected to elevated temperatures, e.g. during welding or flame cutting, fumes are produced containing oxides of iron and the added elements. The principal mode of entry into the body is inhalation and the potential effects on health, which include metal fume fever, a short lasting condition with symptoms similar to those of influenza, are dealt with in the documents listed under “Some Relevant References”. Stainless steel fume is a potential respiratory sensitiser and can lead to occupational asthma.

Precautionary and Proactive Methods
When handling the product appropriate protective clothing should be worn to prevent lacerations. Similarly, when breaking open the strapping appropriate clothing and equipment such as hand and eye protection should be worn.

To ensure the Occupational Exposure Limits set out over-leaf are not exceeded when fume/dust is generated provide adequate ventilation, if necessary, including local fume extraction.

Alternatively, where necessary, appropriate respiratory protective equipment should be provided for use by those at risk from inhalation of fumes.

Product Health and Safety
Data Sheets continued

Current Occupational Exposure Limits

	Type of Limit	***8h.TWA***	***15Min.TWA***
Iron Oxide, fume (as Fe)	WEL	5.0mg/m³	10.0mg/m³
Manganese and its inorganic comp'ds	WEL	0.5mg/m³	-
Manganese, fume (as Mn)	WEL	1.0mg/m³	3.0mg/m³
Chromium metal 'bi' and 'tri'valent (as Cr)	WEL	0.5mg/m³	-
Chromium hexavalent (as Cr)	WEL	0.05mg/m³	-
Nickel compounds (as Ni), soluble compounds	WEL	0.1mg/m³	-
Nickel compounds (as Ni), insoluble compounds	WEL	0.5mg/m³	-
Molybdenum compounds (as Mo), soluble compounds	WEL	5.0mg/m³	10.0mg/m³
Molybdenum compounds (as Mo), insoluble compounds	WEL	10.0mg/m³	20.0mg/m³
Vanadium Pentoxide	WEL	0.05mg/m³	-

Some Relevant References
Personal Protective Equipment at Work Regulations 1992
BS EN 166: Personal Eye Protection, Specifications 2002

HSE Guidance Notes
EH2: Chromium – Health and Safety Precautions
EH40: Occupational Exposure Limits – current edition
HSG173: Monitoring Strategies for Toxic Substances
EH60: Nickel and its Inorganic Compounds: Health and Safety Precautions

All information and references in these data sheets are accurate as at May 2008. Users/customers should ensure that there have been no alterations or further data sheets since that date.

If you require further information or advice on the use of this product, please consult our Technical Department.