Product Health and Safety

Data Sheets — Revised Edition (2026)

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”.

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 Workplace 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.

Current Workplace Exposure Limits (WELs)

Workplace Exposure Limits (WELs) are set out in Table 1 of EH40/2005 (as amended) and apply under the Control of Substances Hazardous to Health Regulations 2002 (as amended). A single WEL classification applies to all substances listed — there is no longer a distinction between "Occupational Exposure Standard" and "Maximum Exposure Limit".

Substance	Type of Limit	8h. TWA	15 Min. TWA
Iron Oxide, fume (as Fe)	WEL	5.0mg/m³	10.0mg/m³
Manganese and its inorganic compounds (as Mn)	WEL	0.2 mg/m³ (Inhalable) / 0.05 mg/m³ (Respirable)	-
Chromium metal, bi- and trivalent (as Cr)	WEL	0.5mg/m³	-
Chromium hexavalent (as Cr)	WEL	0.01mg/m³ / 0.025 mg/m³ (process-generated)	-
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 (as amended by the Personal Protective Equipment at Work (Amendment) Regulations 2022, which extend employers' PPE duties to limb (b) workers)

BS EN ISO 16321-1:2022 (+A1:2025) – Eye and face protection for occupational use: General requirements (superseding BS EN 166:2002, which ceased to provide presumption of conformity for new certifications from 11 November 2025; equipment already certified to BS EN 166 may remain on sale until its certificate expires)

HSE Guidances Notes

EH2: Chromium – Health Surveillance for Hexavalent Chromium Compounds

EH40/2005: Workplace Exposure Limits – current edition

HSG173: Monitoring Strategies for Toxic Substances

WL3: Welding Fume Control

INDG351: Working with Nickel – Are you at risk?

All information and references in this revised data sheet are accurate as of July 2026 and supersede the version dated November 2020. 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.