TATA STEEL

TATA

February 2015

Advantica® CL Clean pre-finished steel
Safety data sheet

1. Identification of the Substance and company

1.1

Other names:	Advantica®CL Clean
Description:	Galvanised steel coated with a combination of polyester and polyethylene terephthalate (PET)

1.2

Use – for cladding buildings (internally and externally) and also general engineering.

1.3

Company:	Tata Steel Maubeuge,Louivroil, France
Telephone:	+33 (0)327 530 530
Normal Hours:	Technical Enquiries Department
Email:	Frederic.Noyer@tatasteel.com

1.4

Emergency:	Contact Security Department on +33(0) 327 530 530

2. Hazards Identification

2.1

Pre-finished steel organically coated steel is not classified as dangerous under both the EU Dangerous Substances (67/548/EEC) / Preparations (1999/45/EC) Directives, and according to the Classification, Labelling and Packaging of substances and mixtures (CLP) regulations (EC)1272/2008).

Under normal application we do not recommend the following activities and advise against carrying them out on our product. Mechanical working such as dry grinding / sanding and hot working such as welding or flame cutting could potentially give rise to hazardous dust / fumes from components of the coating layers. Section 3 (Composition/information on ingredients) identifies the main components of the pre-finished steel and those, which may be hazardous. Zinc is present within the hot dip metallic coating layer of the product, exposure to zinc (oxide) fumes should not occur as we advise against the activities listed above. Exposure to zinc (oxide) fume can lead to operators experiencing flu like symptoms, which could occur after exposure.

2.2

No label required, no signal word required.

2.3

Pre-finished steel has sharp edges and corners and precautions should be taken when handling and storing. Under normal conditions of use and storage these materials are stable and non-toxic.

3. Composition / information on ingredients

3.1

Advantica®CL Clean is produced by applying polyester coating followed by a PET film to hot dipped galvanised steel coil. The reverse surface of the sheet is coated with a single coat polyester backing system. Based on 0.4mm gauge material, the organic coating represents approximately 4.5% of the weight of the finished product.
Once coating has been cured it is deemed non-hazardous, as it becomes un-reactive. Table showing typical composition of the product range based on 0.4mm pre-finished steel gauge with metallic coating weight of 275gm^{-2}.

Product area	Substance	EINECS No.	CAS No.	(%) By Weight	Hazard Class (Dangerous Sub/Prep Dir)	Hazard Class (CLP Regs)
Steel Substrate	Iron	231-096-4	7439-89-6	~ 81.0%	---	---
	Carbon	231-153-3	7440-44-0	~ 0.50%	---	---
Hot dip metallic coating	Zinc	231-175-3	7440-66-6	~ 7.60%	---	---
Organic coating layers (Paints)	PET	---	---	~ 1%	---	---
	Polymer Resins	---	---	~ 3.5%	---	---

4. First aid measures

4.1

Skin contact: Cuts (lacerations) to the skin from sharp steel edges, treat as a normal cut and if required seek medical attention.

Eye contact: If particles enter the eye then wash the eye with running water for at least ten minutes. Seek medical advice if irritation persists.

Inhalation: If hot work such as welding / burning causes exposure to significant concentrations of fume/dust, remove to fresh air. Seek medical attention if symptoms such as coughing persist.

Ingestion: None required.

4.2

The most important symptoms and effects for eye exposure are soreness and irritation are the main symptoms.

4.3

Immediate medical attention is required if lacerations are deep.

5. Fire fighting measures

Non-flammable and has a high melting point of >1000°C. This product has a very low calorific value and reaction to fire classification. If the product is involved in a fire there is a potential for carbon monoxide to be released through combustion. In the event of fire, suitable and approved respiratory equipment should be worn by fire services.

6. Accidental release measures

Not applicable.

7. Handling and Storage

7.1 Handling

The supplied coiled or bundled product may be secured by banding straps, which have been fitted under tension and should not, under any circumstances, be used to lift the product.

When released, the coiled or bundled product itself or the banding straps can spring loose and cause impact injury to the eyes, face or any other part of the body. Certain products may, as a result of processing, be brittle or have residual stress, which can cause them to fracture or move significantly. Shearing these products, may produce flying debris and operators should be trained and aware of these issues prior to handling this material.

All products are likely to have sharp edges, which could cause lacerations. Operators should wear suitable protective clothing and equipment, such as hand and eye protection.

7.2 Storage

Some products may be secured by using straps or bands but they could cause injury to eyes or other injuries when tension is released. There may be sharp edges present, which could cause lacerations. The coated steel should be stored in an appropriate facility to prevent damage and use suitable racks or stillages that will ensure stability. Lifting should always be done to prevent personal (injury) damage to the operators and lifting equipment is advised at all time to move the steel unless a full risk assessment has been carried out.

8. Exposure controls and personal protection

8.1 Control parameters (Occupational Exposure Limits (OELs))

Current Workplace Exposure Limits (WEL) (EH40/2005 as revised to Oct 2007). Please note these exposure limits are not directly associated with the product but with possible exposures that may occur when performing certain activities, which are advised against and which may give rise to specific hazards.

Country in EU with OEL for the relevant substance	Substance					
	Iron oxide (Fe_2O_3 & FeO) as Iron		Dust inhalable		Dust respirable (also applicable as fume)	
	8 hr TWA (mg/m^3)	STEL (mg/m^3)	8 hr TWA (mg/m^3)	STEL (mg/m^3)	8 hr TWA (mg/m^3)	STEL (mg/m^3)
Austria	5.0 (resp)	10.0 (resp)	10.0	20.0	5.0	10.0
Belgium	5.0	---	10.0	---	3.0	---
Denmark	3.5	7.0	10.0	20.0	---	---
France	---	---	10.0		5.0	---
Germany (AGS)	---	---	10.0	20.0	3.0	6.0
Germany (DFG)	---	---	4.0	---	1.5	---
Hungary	6.0 (resp)	---	10.0	---	6.0	---
Poland	5.0	10.0	---	---	---	---
Spain	5.0	---	10.0	---	3.0	---
Sweden	3.5	---	10.0	---	5.0	---
United Kingdom	5.0	---	10.0	---	4.0	---
TWA - Time Weighted Average measured over an 8 hour period						
STEL - Short Term Exposure Limit Value – 15 minute duration						
Resp - Respirable fraction of dust						

8.2 Control Measures

Wear suitable gloves, overalls and eye/face protection when handling the pre-finished steel to prevent cuts and abrasions.

If hot work activities such as welding or burning or mechanical abrasion are to take place then local exhaust ventilation (LEV) should be used to remove any fume produced. During the use of LEV systems the manufacturers instructions and guidance should be followed at all times so that there is sufficient capture hood and capture velocity and the air cleaning system is in good working order. If a large amount of fume is generated then in conjunction with the LEV, use of suitable and approved respiratory protection should be worn if exposure is likely to be above the OEL. Ori-nasal respirators fitted with either a P2 or P3 filter (EN149: FFP2S / FFP3S) may be used when fume levels are high depending on concentration. Manufacturers directions for use must be followed and where applicable an RPE face fit test should be successfully completed before use. It should be necessary to prove a tight fitting face seal via face fit testing.

9. Physical and chemical properties

Property	Value used
Physical State at 20°C/ 1013 hPa	Solid
Form	Hard, dense silver/grey coloured metallic solid with external paint layer
Melting point	1450-1520°C at 1013 hPa (steel); 419°C at 1013 hPa (zinc)
Boiling point	Not applicable
Relative density	7.85 kg/dm^3 at 20°C
Vapour pressure	Not applicable steels due to high melting point >1000°C
Surface tension	Not applicable steels are an inorganic solid with very low aqueous solubility
Flash point	Not applicable steels are an inorganic solid with a high melting point >1000°C
Flammability	Reaction to fire class A1
Explosive properties	Non explosive
Oxidising properties	No
Viscosity	Solid

10. Stability and reactivity

The product is stable under normal conditions. When heated to high temperatures (>1000°C) it may give rise to fumes (iron oxide).

11. Toxicological information

Under the general applications of this product health effects should not occur due to the low risk of exposure to minimal hazard material. If the following activities are carried out, mechanical working, such as dry grinding or machining or hot work such as welding and burning, dust / fume will be produced which may contain irritating components at sufficiently high enough concentrations. The principal route of entry into the body is via inhalation as fume/dust.

Acute toxicity
Excessive fume/dust may cause irritation and can be potentially harmful if inhaled into the body in large amounts over long time periods. This is not expected under normal use of the product.

Skin corrosion / irritation
The potential fumes/dust arising is not known to be an irritant.

Eye damage / irritation
The potential fumes/dust arising is not known to be an irritant.

Respiratory / Skin sensitisation
The potential fumes/dust arising is not known to cause sensitisation.

Germ cell mutagenicity
No effect. No exposure under normal use

Carcinogenicity
No effect.

Reproductive toxicity
No effect. No exposure under normal use

Repeated dose toxicity - Inhalation
Exposure to iron oxide fume, in excessive concentrations and over long periods of time, may cause a benign condition called siderosis. Repeated inhalation could lead to cumulative effects. This condition is not expected under normal use of the product.

12. Ecological information

There are no known harmful effects from the product to the environment. Under general application exposure to the environment should not occur.

12.1 Toxicity
No effect.

12.2 Persistence and Degradability
No effect.

12.3 Bioaccumulative potential
No effect.

12.4 Mobility in soil
No effect.

12.5 Results of PBT and vPvB assessment
Plain carbon steel is not PBT or vPvB.

13. Disposal considerations
Steel products are 100% recyclable and should be recycled at ”end of life” in all situations.

14. Transport information

Plain carbon steel is not classified as dangerous under CLP or Dangerous Substances Directive for transport so there is no requirement for transport information. All subheadings in this section are not applicable for this product.

15. Regulatory information

15.1
Plain carbon steel specifications are covered by numerous ISO standards. All steels covered by this safety data sheet comply with the packaging and packaging waste EC Directive 94/62/EEC on heavy metal content, the Restriction of Hazardous substances directive 2002/95/EC and the End of Life Vehicle directive 2000/53/EC. The iron manufactured and used to produce this steel product has been registered under REACH along with any other component where a registration was required.

15.2
A Chemical Safety Assessment has not been carried out as steel is defined as an article under REACH and does not require an assessment, plus it is not classified as dangerous under the CLP Regulations (EC)1272/2008 and or the Dangerous Substances Directive (67/548/EEC).

16. Other Information

Revision
This safety data sheet (SDS) has been produced / revised in line with Annex II of the REACH Regulations (2006) as guidance only, as articles do not require a SDS. Information in this safety data sheet is supplied to inform the customer and should be used where necessary.
This revision is the current version dated **September 2011**
Previous Versions: *November 2010, June 2009 (as Corus), September 2008 (as Corus), March 2002 (as Corus)*

Risk and Safety Phrases according to (67/548/EEC): No Risk phrases.
Hazard and Precautionary Statements according to CLP Regulations (EC)1272/2008): No Hazard statements.

References
GESTIS International Limit Values Institut fuer Arbeitsschutz der Deutschen Gesetzlichen Unfallversicherung (IFA) – website: http://bgia-online.hvbg.de/LIMITVALUE/WebForm_gw.aspx

Disclaimer
The information, specifications, procedures, and recommendations herein are presented in good faith and are believed to be accurate and reliable at the date of issue. Where information is taken from supplied items it is the responsibility of the supplier to ensure the accuracy of the data. The individual authors of this safety sheet are deemed to be appropriately competent. This safety data sheet was constructed using the guidance provided under the REACH regulations ((EC) No 1907/2006) as to the format and information required. For steel articles a safety data sheet is not a legal requirement and is provided for the convenience of downstream users. Occupational exposure limits (OEL) used in this safety data sheet will be EU OELs and where these limits do not exist UK OELs will be the reference limit. No liability can be accepted with regard to the handling, processing or use of the product concerned which, in all cases, shall be in accordance with appropriate regulations and or legislation. Tata Steel Europe gives no warranty or representation as to the accuracy of the information or for the guidance being for, or suitable for, a specific purpose. All implied warranties and conditions are excluded, to the maximum extent permitted by law. Use of this document by any third party is at your own risk. Save to the extent that liability cannot be excluded by law, Tata Steel Europe is in no way responsible or liable for any damage or loss whatsoever arising from the use of or reliance on the information and guidance contained in this document.